A TREATISE

ON

DISEASES OF THE SEXUAL SYSTEM,

ADAPTED TO

POPULAR INSTRUCTION.

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AND

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PREFACE.

The writer of these pages is unwilling to subject himself to the aspersion which will probably follow their appearance, without an explanation of the motives that induced him to prepare them; and as those who censure often doubt the statements of such as incur their animadversion, he hopes by the nature and distinctness of an avowal rarely made by authors, as well as the internal evidence of the book itself, to obtain full credit for what he is about to say.

In the first place then, the motive is self-interest. The author has long been urged by numerous professional friends as well as patients, to publish such a book. Both, smarting under the influence of licensed and other quackery, have assured him that it would be approved by intelligent professional and other men. This, not only from conviction of the candour of his friends, but extensive personal observation, he believes. A diversified practice of fifteen years' duration, with a minute and comprehensive knowledge of the medical policy of the day, has entirely convinced him that the most effective causes are operating, to break down the slender barrier hitherto existing, between the accomplished surgeon and the vilest empyric. This has long rested on a foundation as feeble as the public intelligence on medical subjects, and the only wonder is, that it has so long withstood the onslaught: the late act of the legislature is the legitimate sequence of its own miserable policy, in granting to colleges monopolies to teach, or rather to huckster diplomas.

The profession is now open to all:—yes, so far as the fostering care of that great "caterer and dry nurse of the state"

an American egislature can extend its maternal arms, the most profound of our number may enter the lists for public favor, with his boot black. This kind protection of the public health, was absolutely a necessary appendage to their previous enlightened act; for these colleges, alas for poor humanity, have been animated with such persevering zeal for the numerical, not the intellectual strength of their graduates, (upon the yearly number of whom the subsistence of many of their professors entirely depends,) that the country is flooded by men totally destitute either by education or habits of philosophic thought, for the profession to which they have so unhappily been admitted.

This has gradually destroyed the only perceptible difference between the physician and the patient: for although a specious and bland exterior, or as Bacon hath it, "a person excellently well qualified for artifice in general," will do much to ensure respect, still the absence of a thorough education, will in a protracted and difficult case, often convince the attendant that it is unwise to make indefinite calculations upon the stupidity of his patient; he will eventually require an explanation of his treatment, which however incompetent to understand, he will so much the more pertinaciously demand From a deficiency in the medical education of his attendant, this may be difficult; to a person thus situated, we say in all candour, possess yourself of this little book; 'twill give the necessary information, and make your patient tractable; whilst you go home and consult some of those great authors you would have been obliged to study, had you been properly educated; and for fear the patient should discover your motive should you present him with the volume, tear out nicely this preface, and leave the blank leaves that intervene expressly for this purpose. So much for interest; and it will be seen we anticipate an extensive sale.

In addition to a description of numerous delicate and distressing affections to which we are all liable, and which require

the utmost nicety of discrimination and treatment, we have attempted to show how the very sources of its earliest existence in its mother's womb, are impressed by the vices of its parents; and to trace the web of error that is wound round the nervous system of the little infant, even from the pure fountain of maternal love, till having entered the "dark labyrinth of sin," he presents himself to the surgeon, a fellow-being of ungoverned passion, with his very life-blood sapped in the citadel; he has imbibed

> "The leperous distilment; whose effect
> Holds such an enmity with blood of man,
> That, swift as quicksilver, it courses through
> The natural gates and alleys of the body—
> Curdling like eager droppings into milk,
> The thin and wholesome blood."

And it his duty to give the patient the benefit of his hearty sympathy, and all the aid that modern science can afford The reader cannot fail to perceive that the whole object o. the book is to prevent the folly of an attempt at self-treatment. Surely, if we have been successful in enumerating half the legitimate consequences of the affection, none but a madman would attempt to tamper with himself.

We have spoken at length on the primary symptoms, because it is in that stage that he is most susceptile of scientific treatment. Alas! how often does he present himself in the loathsome condition of secondary disease, when perhaps, the merciless ignorance of quackery has exhausted itself upon him, and he becomes conscious of his credulity. How often at a period of life when the glad heart leaps at the very consciousness of existence, and he beholds his companions buoyant with hope and the elastic energy of youth, surrounded with all the endearments of conjugal and parental love,—the sweet smile of infantile innocence lisping the name of father —mother;—his melancholy condition of disease and decay shows its subduing influence on the spirit, and he awakes to hi true condition. Well did David exclaim, "There is no

soundness in my flesh because of thine anger." "My heart panteth, my strength faileth, as for the light of mine eyes it is gone out from me."

Under such emotions, it was once the sad fortune of the writer to witness the death of a noble young man by his own hand; the symptoms, after repeated affections had become utterly unmanageable, and his physician a most amiable and skilful man, told but too plainly by his countenance his lost hope; he seized a razor and severed both the jugulars, ere his hand could be arrested or even his purpose known, thus ending his sorrows in the grave, where the light of hope and life had nearly expired together.

It is from despair like this that the humane surgeon is to rescue the victim of passion, and it is his duty to prevent the soul-sickening anguish of many a mother's heart, ere it become her sad fate to reflect, that her unborn babe is poisoned in the secret springs of its existence, and, instead of the invocation for its safety, her prayer shall be that its death may be granted her as the most merciful boon of Heaven. It is indeed often the case that the surgeon is called to treat disease of this very character in the bosom of domestic life, where all around gives evidence of happiness: alas,

> "That lust, though to a radiant angel linked,
> Will sate itself in a celestial bed
> And prey on garbage."

Yet this is one of the many pages of life presented to us, and, whilst we cannot prevent the melancholy fact, let us apply our best efforts for the removal of the consequence: how far this will assist the profession is yet to be seen. The writer will only add, that though their approbation will be agreeable, their censure will not distress him.

CHAPTER I.

HISTORY OF SYPHILIS.

THERE are so many points of interest connected with the history of syphilis, not only to the physician and general reader, but also in a medico-legal point of view, that I shall offer no apology for the length of the first chapter, but my regrets that it has not been done in a more acceptable manner.

The reasoning advanced on its origin, is in accordance with principles recognized by some of the highest names in our profession. Not only bibliography, but facts and analogy, tend to confirm it; and although the idea of there being constantly entire new points for its origination, by means of morbid secretions, would seem to favour the belief that both the varieties of venereal, syphilis and gonorrhea, might occasionally merge into each other, as was supposed by Mr. Hunter, and involve the treatment in obscurity, still, I apprehend no such result in the hands of judicious practitioners. Neither is it likely that this volume will be read by them, if perchance it should not be entirely condemned from opposition to popular instruction. The writer well knows, and long himself held the same doctrine, that by no possibility could the people be informed on medical subjects. Increased knowledge of men and things has taught him better, and he now sincerely believes, that the blasting influence of quackery might

long since have been checked, had the profession devoted half the effort they have made, in instructing the public, rather than opposing them.

The importance of the subject of the occasional re-origination of syphilis, is very great; and although I certainly have never met with a case, in which I had reason to believe this has occurred in syphilis, I can by no means say the same of gonorrhea, for I firmly believe I have, and by parity of reasoning, on syphilis, a like result will follow.

Although ulcers of the genital organs are mentioned in Hyppocrates and other ancient writers, the Bible furnishes us with the first written assurance of syphilis; and it is very evident that Moses, that profound legislator and physiologist, well knew its nature; see Leviticus, chapter xv.—

"1. And the Lord spake unto Moses and to Aaron, saying,

"2. Speak unto the children of Israel, and say unto them, When any man hath a running issue out of his flesh, *because of* his issue; he *is* unclean.

"3. And this shall be his uncleanness in his issue; whether his flesh run with his issue, or his flesh be stopped from his issue, it *is* his uncleanness.

"4. Every bed whereon he lieth that hath the issue, is unclean; and everything whereon he sitteth, shall be unclean.

"5. And whosoever toucheth his bed, shall wash his clothes, and bathe *himself* in water, and be unclean until even.

"6. And he that sitteth on *any* thing whereon he sat

that hath the issue, shall wash his clothes, and bathe *himself* in water, and be unclean until even."

The rest of this chapter is devoted to an explanation of the necessary ablutions and offerings to be made by the male, and female; for in verse xix. we have a similar injunction for her, viz. "If a woman have an issue, *and* her issue in her flesh be blood, she shall be put apart seven days; and whosoever toucheth her shall be unclean until the even." Then follow still more emphatic commands respecting the menstrual period, to which, there is no doubt, the preceding injunction refers—verse xxiv. to which we refer the reader, preferring to add, in its place, the commentary of the learned Dr. Adam Clarke,—see Commentary on the 15th chapter of Leviticus. "When any man hath a running issue," &c. "The cases of natural uncleanness, both of men and women, mentioned in this chapter, taken in a theological point of view, are not of sufficient importance to us to render a particular description necessary, the letter of the text being, in general, plain enough. The disease mentioned in the former part of this chapter, appears to some to have been either the consequence of a very bad affection, or of some criminal indulgence; for they find that it might be communicated in a variety of ways, which they imagine are here distinctly specified. On this ground, the person was declared unclean, and all commerce and communion with him strictly forbidden. The septuagint renders "ha-zab," the man with the *issue*, by ο γονορρυης, the man with a gonorrhea, no less than nine times in this chapter, and that it means, what, in the present day, is commonly understood by

that disorder, taken not only in its mild, but in its worst sense, they think there is little room to doubt. Hence they infer, that a disease which is supposed to be comparatively *recent* in Europe, has existed almost from time immemorial in the Asiatic countries; and that it ever has been, in certain measures, what it is now; and that it ever must be the effect of sensual indulgence, and illicit and extravagant intercourse between the sexes. The disgraceful disorder referred to here, is a foul blot which the justice of God, in the course of providence, has made, in general, the inseparable consequent of these criminal indulgences, and serves, in some measure, to correct and restrain the vice itself. In countries where public prostitution was permitted, where even it was a religious ceremony among those who were idolaters, this disease must have been frequent and prevalent. When the pollutions and libertinism of former times are considered, it seems rather strange that medical men should have adopted the opinion, and consumed so much time in endeavouring to prove it, viz. that the disease is *modern*. It must have existed, in a certain measure, ever since prostitution prevailed in the world; and this has been in every nation of the earth, from the earliest era. That the Israelites might have received it from the Egyptians, and that it must, through the Baal-peor and Ashteroth abominations, which they learned and practised, have prevailed among the Moabites, &c., there can be little reason to doubt. Supposing this disease to be at all hinted at *here*, the laws and ordinances enjoined were at once wisely and graciously calculated to remove and prevent it. By contact, contagion of every

kind is readily communicated; and to keep the *whole* from the *diseased*, must be essential to the check and eradication of a contagious disorder. This was the wise and grand object of this most enlightened legislator, in the ordinances which he lays down in this chapter. I grant, however, that it was probably of a milder kind in ancient times; that it has gained strength and virulence by continuance; and that, associated with some foreign causes, it became greatly exacerbated in Europe about 1493, the time in which some have supposed it first began, though there are strong evidences of its existence in this country ever since the eleventh century." So far Dr. Clarke's learned commentary on this interesting matter, we have no doubt, will very satisfactorily precede any ideas of our own; and as it is more than probable our use of his commentary, as well as his own explanation, will be condemned by well-meaning, though prejudiced readers, we think it right to give the full benefit of all existing light on our subject to be derived from the Bible; we shall therefore continue our reference to that work.

The ordinance so wisely promulgated by Moses, dates as early as 1400 B. C. More than five hundred years later, the xxxviii. Psalm was written, on which we find the following expressive announcement by Dr. Clarke, vide his Commentary:—"Several conjectures have been made relative to the occasion on which this Psalm was composed; but it does not appear that, out of all the titles given it, we can gather the true intent of the Psalm: the most likely is, that it was in reference to some severe affliction which David had, after his illicit

commerce with Bathsheba; but of what nature we are left to conjecture from the third, fifth, and seventh verses."

There can be little doubt that Bathsheba, from her willingness to assent to David's propositions, was a person who valued her virtue very lightly, notwithstanding the possession of a husband, of so many graces, and such distinguished valor. The exposure of her person, whilst bathing, to the public gaze, (to what extent we are not informed, though it seems it attracted the notice of David from the roof of his house,) was sufficient evidence of her lightness of character, and the probability of her being affected with venereal. The Psalm is dated, B. C. 1034, not quite one year after the disgraceful act, or enough for the developement of syphilis in its worst form.

"3. *There* is no soundness in my flesh because of thine anger; neither *is there any* rest in my bones because of my sin."

Pain in the bones, or rather, as the reader will see in the symptoms of secondary syphilis, in their investing membranes, and the deeper ligamentous structures of the body generally, is common in syphilis. Dr. Clarke remarks, "This seems to refer to some disorder which so affected his muscles as to produce sores and ulcers."

"5. My wounds stink *and* are corrupt, because of my foolishness."

"Taking this in connexion with the rest of this Psalm, I do not see that we can understand the word in any figurative or metaphorical way. I believe they

refer to some disease with which he was at this time afflicted: but whether the leprosy, the *small*-pox, or some other disorder that had attacked the whole system, and showed its virulence on the different parts of the surface, cannot be absolutely determined.

"7. For my loins are filled with a loathsome disease: and there is no soundness in my flesh."

Dr. Clarke—"Or, rather, a *burning;* nikelah, from kalah, to *fry*, *scorch*, &c.; hence nikelah, a burning or strongly feverish disease."

"10. My heart panteth, my strength faileth me: as for the light of mine eyes, it is also gone from me."

"There is no soundness in my flesh."—"All without and all within bears evidence that the whole of my solids and fluids are corrupt."

"11. My *lovers* and my friends stand aloof from *my sore;* and my kinsmen stand afar off."

"For fear of being infected by my disease."

It would certainly be difficult for the most eloquent and observing physician, to describe the secondary symptoms of an aggravated case of syphilis, with more graphic earnestness, than is here set forth. It had not only affected the entire circulating system, but even the eyes, with some one of the three principal varieties of inflammation of that organ. See chapter x.

To the unbiased mind, there can be no reasonable doubt that the above quotations allude to syphilis; and we think Dr. Clarke's Commentary conclusive. Moreover, when we come to treat of some other diseases of the penis, we shall show conclusively, that the enlightened and humane right of circumcision, in connection with

proper ablution, so often and forcibly enjoined by Scripture, is the most efficient way to prevent the occurrence of the disease.

Hyppocrates, who lived 460 B. C., describes ulcers of the genital organs of both sexes, as of frequent occurrence. Now, though these were not called syphilitic, their *frequent* occurrence in so suspicious a locality, is evidence enough of their contagious character. A host of writers follow, who describe so many ulcers affecting these parts, that it is really difficult to conceive what use writers could assign these organs, that rendered them so peculiarly unfortunate, who try to support the idea of its modern origin.

A very curious document is preserved, from the statutes of Jane I., Queen of both the Sicilies, respecting the regulation of the public stews of Avignon, in 1347. We cannot withhold our approbation from the truly kind and philosophic attention of her majesty to the welfare of her subjects, however her delicacy may be questioned. The document is as follows:—"The Queen commands, that on every Saturday the women of the house be singly examined by the abbess, and a surgeon, appointed for that purpose by the directors, and if any of them have contracted any illness by their whoring, that they should be separated from the rest, and not suffered to prostitute themselves, for fear the youth who have to do with them catch their distempers."

Queen Elizabeth, who found, if report say true, a peculiar use for the finest of her male subjects, despite a proper attention to maidenly decorum, made the

enactment, "that every male in her train of attendants, who had a running from the pentle, should pay into the public treasury forty shillings."

About the year 1500, a writer, Benedict Victorius, advanced some curious views, to the correctness of which the more astute philosophy of the present day would find it rather difficult to assent, viz. that the venereal disease was epidemic, and originated, in his own words, "from an unwholesome disposition in the air," and "a spontaneous corruption of the humors, contracted by an error in diet, or the abuse of the non-naturals." This writer seems, moreover, to have found it necessary to defend la belle France, from a mischievous imputation, by the English, of having originated it, by their wickedly calling it Morbus Gallicus. He produced an elaborate essay, going to prove that the state of the air, together with that of the putrid humors, is sufficient to produce it; and to put the matter beyond all doubt, he testifies that he happened to know "some very worthy and religious nuns, who were confined in the strictest manner, unfortunately contract the disease, from the peculiar state of the air, together with that of the putrid humors, and the *weakness* of their habit of body." This doctrine, though at the present day we smile at its absurdity, was really not only believed, but stoutly defended by physicians, many of whom being monks, and of course immaculate, and having access to nunneries, may have had *some private* reasons for their pertinacious adherence to their own tenets.

In 1496, the French, who had no such reasons, so far believed this absurdity, as to pass an edict, that all

who had venereal, on pain of death, should be prohibited from conversing with the rest of the world, and retire to St. Germains, to places set apart for that purpose.* Nevertheless we find certain sagacious old doctors, in England, as late as 1380, who give reason to suppose, by their treatment, that they had no views grounded on the innocence of the nuns. They went at it in a workmanlike way, and cured up their patients, secundem artem, paying very little attention to the agency of the air, or the *non-naturals.* About the same period, a very learned Latin author, John Gadisses, gives ample proof that he knew of its contagious nature, and was very successful in its treatment.

Without dwelling longer on the history of the disease, I will merely remark, that after long disputes about its identity with leprosy, its originating in America, and being brought to England by Columbus's sailors, the peculiar kind of venereal found, on the discovery of this country, in Canada, the Sivvens of Scotland, the Yaws of Africa, the Judham of the Jews, and the Venereal of Norway,—it was reserved for the genius of the English, to investigate this subject philosophically, by directing their attention to the general laws of the diseases of that peculiar membrane, called mucous, that lines the genital organs of both sexes That this is the only philosophic plan of investigating the nature of the disease, is evident, not only from the absurdity of supposing a single point of the whole

* This edict related to the disease that broke out during the siege of Naples. Now there is great doubt if this was actually syphilis, as the reader will see directly that it was communicated without contact.

earth's surface for its origin, when the genital organs, being of similar structure and functions, must inevitably have been affected with similar general diseases, throughout the world; and if the general results of inflammation, for example, were the same, why not the individual one in question, or the secretion of a specific poison, from similar, though inappreciable causes. See, for one moment, what forcible analogies may be found;—the specific virus of a mad dog's saliva, invariably produces similar results all over the world; and yet it is constantly originating, de novo. Why! those who would have a single point of origin—as from America—might as well assert that all rabid dogs were in turn bitten by each other, and that the necessary antecedent to hydrophobia, was to be from some one individual of the species. Yet this would be deemed an absurdity. Moreover, the reader will see the various effects produced upon different constitutions by the same virus; and, as it has always been known that the secretions even of healthy individuals, have their essential differences, (the dog even distinguishing the smell of his own master,) is it not a fair inference, that dis ease would produce equal changes in the secretions of the private parts, and that these secretions might, when united with others, become specific.

Again, it is well known, in the various modifications of Leucorrhea—a disease to which the most virtuous females are subject—under this same law, from the most simple state, this very disease will pass into the most virulent and distressing one, producing great irritation and offensive discharge, and often affecting their

legal partners with every symptom of gonorhrea. It has always been known that anatomists, cooks, and butchers, have been subject to severe and often fatal affections from vitiated animal decomposition; and this again is another forcible analogy, affording the strongest reasons for our conclusion, taken in conjunction with the disgusting want of cleanliness about the genital organs, so universal amongst a very large portion of the human race.

The writer would not be misunderstood on this important point. The object is to convince the reader, that there must have been, and by the same mode of reasoning still are, and will continue to be, (however rarely,) entire new points of origin, somewhere upon the extensive surface of this earth. He is perfectly aware of, and will soon show from the investigations of Hunter and Ricord especially, (for to them, almost exclusively, belongs the credit of rigid experiment and induction,) that the form of venereal productive of the most serious constitutional mischief, is the result of a primary sore, to which has been applied, from its first observer, the term Hunterian Chancre; and that this is almost universally succeeded by a characteristic eruption over the body. Mr Carmichael, a very distinguished and philosophical surgeon, published a work in London, in 1825, on the plurality of venereal poisons. Although he believes the disease now recognized as syphilis, to have been first brought to England by Columbus's sailors, still he asserts, as we also have endeavoured to show, that venereal diseases, "strongly resembling the imported one," have existed for three centuries, and been, from their

marked resemblance, confounded with it. Mr. Samuel Cooper, in his surgical dictionary, (a work of the highest authority,) remarks, that the army of Charles VIII. at the conquest of Naples, in 1494–5, were afflicted with a supposed venereal disease, "that spread with unexampled rapidity and virulence."

There is a decree of the parliament of Paris, dated 1496, in which this disease is mentioned as having existed two years; and as it is said to have spread "with such unexampled rapidity," in that period, and moreover to have been communicated merely "by the touch, residence in the same chamber," &c., it could never have been ordinary venereal. Indeed, Mr. Cooper also remarks, "unless some other mode besides coition be supposed, its extension throughout Europe in two years, would imply a depravity of manners quite unexampled, and beyond all credibility."

As we find about this period, however, the attention of writers strongly directed to its investigation, it seems fair to infer that it had undergone some important change—perhaps in virulence. Above all other data, however, must be placed the introduction of mercury in its cure. This took place in 1516. See Cooper. As this is the nearest approach to a specific, it must, in the absence of a better mode, which certainly did not then exist, have been the surest way to determine what was, and what was not, specifically syphilitic.

CHAPTER II.

CHANCRE.

The term venereal disease, we shall not employ, as that would imply any disease following coition; nor shall we, in this chapter, say a word of gonorrhea or clap, as that is, beyond all doubt, a local disease, that cannot permanently affect the constitution; although its distressing, and often permanent effects, when neglected, will be sufficiently apparent when we treat on that subject.

The term syphilis, is derived from the Greek σιφλος, filthy, and is the one mostly in use by physicians. Pox, is the vulgar term. The first question, and the most important to be determined is, what is the most uniform and unvarying symptom by which we shall know when a person has contracted syphilis? Undoubtedly, the appearance of an ulcer on the genital organs. But this ulcer is not always visible, either in the male or female; neither is it *always* syphilitic; and, lastly, there are very rare, though occasional cases, in which the disease is communicated, without any ulceration whatever, or any visible external sign, and in which the first evidence we have of any venereal disease, is the appearance of a bubo in the groin; and even this itself has been known not to occur, or to pass away without be-

ing noticed by the patient, and no alarm has been excited until syphilitic sore throat, and an eruption over the skin, has induced the patient to call in advice.

These, we repeat, are rare cases; yet they constitute examples, occasionally submitted to the notice of every experienced practitioner. The order in which spyhilitic symptoms appear, if not stopped by treatment, is as follows:—Chancre, bubo, ulcers and inflammation in the throat, mouth and nose, eruptions on the body, nodes or hard swellings over the joints, tendons, and bones, excrescences about the arms, swellings of the testicles, loss of hair, blindness, and loss of hearing.

The term Chancre, was first applied by the French, from καρκίνος, venereal cancer, from its tendency to corrode. It is only applied to the primitive sore—all others that appear on the body generally being called constitutional eruptions. The matter of syphilis must be directly applied in order to produce it. It is said by medical authors, and practice seems to warrant the observation, that, although the chancre may appear, and usually does, in a few days after an unfortunate con nection, six weeks, and even several months, may elapse before it appears. A gentleman, in the practice of the writer, was two months on the voyage to Canton before the chancre appeared, though there was no possi bility of an infection on board. In these instances, there is no doubt that the virus has produced its specific effect—some inexplicable change in the constitution preventing its development.

Although, from obvious reasons, the chancre usually appears on the penis, especially on the end or glans, as

it is called, still it is not confined to this part. It may appear on any part of the body where the virus touches. Thus we have it on the lips from kissing, the poison having been conveyed there from the fingers; on the nipples of the nurse, from the child, who has been affected in passing through the private parts of the mother, or derived it from the blood of the parents.* And on the thighs and lower parts of the body, generally from the discharge conveyed there by its contiguity to the penis. There may be one or more. In females there are frequently considerable numbers, or many running together. They are not always visible, but may exist within the vagina, and even on the neck of the womb, and in the male *within the urethra.* These latter are often the cause of great errors on the part of the patient and practitioner, as they will go on and produce extensive trouble—the patient supposing he has only gonorrhea.

The amount of discharge is variable, both in appearance and quantity. At first it is scarcely visible, so small is the ulcer. When more advanced, it is generally thin, greenish, and tinged with red. The importance of distinguishing a chancre from other sores to which the penis is liable, is very great. If it should not be a chancre, or specific as physicians often say, mercury is not only unnecessary, but often injurious. The injury often done by mercury is immense, in the hands of inexperienced persons, who, falsely concluding

* There is strong reason to believe that when the mucous membranes are affected with secondary symptoms, they have the same power of inoculating as chancres.

that every ulcer following coition is syphilitic, immediately administer it as a cure-all.

In by far the greater number of cases, chancre appears a few days after coition in the form of a small circumscribed ulcer, no larger than half a buck-shot. It almost invariably presents a sensation of hardness to the feel, other ulcers being soft. It often has a raised edge. This is called the Hunterian chancre. If a patient present himself to a surgeon with a sore thus characterized, within five days from its first appearance, the disease admits of being checked at once, without the necessity of a particle of medicine.

It is a remark of the distinguished Ricord, that if this fact were well known, syphilis would be disarmed of its terrors. Yet the disease often proceeds to the formation of a a bubo. Now this is, in far the greater number of cases, the inevitable result, and thus it happens: the surgeon yields to the patient's fear of an instrument, and hopes to subdue it by caustic,—a method infinitely more painful. The caustic, for the same reason, (the fear of pain,) is only partially applied, and serves, by extending inflammation, to excite absorption of the poison, and the consequent production of a bubo; after which, unless mercury be employed, constitutional symptoms are almost certain. The proper method is to excise it with scissors. This is done in an instant, by means of a small forceps, so constructed as to grasp the BASE of the ulcer; then raising it up, a single clip of the curved scissors removes it at once, and with it all apprehension may vanish. We would urge this upon the reader with the greatest earnestness, well knowing its value in a great number

of cases. Indeed, so highly do we esteem it, that we are not circumscribed by time, and have often done it with success after the fifth day, and when there was every reason to suppose, from the pain felt in the groin, a bubo was forming—nay, it has formed; and then, by its sudden subsidence, proved that it was only the result of irritation, preparatory to absorption of the poison. In the next chapter bubo will be fully explained.

This is the proper mode of treating all chancres whose characteristics are so marked and extent so limited, as to admit of no doubt as to their real nature. Fortunately, as we have said, these are the most frequent, yet they often present aspects of so different a nature, and are so extensive, as, for instance, when several run together, that the patient either refuses to allow, or the surgeon is unwilling to excise them. In all these cases, the thorough application of caustic is the remedy. Mercury is not to be thought of, so long as there is a possibility of stopping the disease at once. Chancres occasionally present the appearance of a raised vesicular character, and are filled with thin serous fluid. These are often too extensive to be cut out. They should be ruptured and instantly well washed with a large quantity of water, so as to prevent the contents from affecting any other portion of the penis. They must then be well cauterized with the nitrate of silver, till they are quite white, and dressed with dry lint only. Examine them on the second day, and if the surface is not thoroughly altered, apply the caustic again. When the sore presents a healthy granulated appearance, dress it with dry lint till healed. No greasy

applications whatever are admissible, whether mercurial or otherwise.

I shall describe the three other appearances that chancres commonly assume, as I am well assured of the interest with which they are viewed by the conscientious though, perhaps, inexperienced physician, and his unwillingness to submit his patient to a protracted mercurial course, for a sore that requires nothing but simple treatment.

The phagedenic, or sloughing ulcer, though it originates in a manner either similar, or nearly so, to the preceding, in a day or two assumes an alarming appearance. It derives its name from φαγω, to eat. It eats away the skin, and should it happen to exist on the smooth surface, or glans of the penis, it may in a few days burrow so deeply as to attack the deep and vascular structure, when the most alarming flow of blood may be the consequence. It has been often noticed, (and here is an irresistible proof that there are essential differences in the original poison,) that several individuals will be affected with this ulcer from the same woman. The ulcer is characterized by great irregularity of shape and depth, being ragged in its circumference, often very painful, and covered with a greyish and thin coating over its surface; its discharge is bloody, from the numerous small vessels it so rapidly destroys, but its natural ulcerous secretion is thin and unhealthful, being the reverse of pus or matter which is bland and cream-like. Both local and general treatment are necessary. The best surgeons frequently attempt to alter the action, as in common chancre, by caustic, the nitric

acid, &c. As constitutional treatment is invariably necessary, and it would evidently conduce to the worst results to tamper with so alarming a case, I shall only suggest to the patient to avail himself of the best surgical aid within reach, and to avoid all domestic or friendly prescriptions, as he values his penis.

The next variety of chancre, and the one we most frequently meet with after the first described, (the phagedenic fortunately being more rare,) is called the *irritable apthous chancre.* It is so named from its resemblance to the small ulcers of a whitish colour that often form in the mouth. Every person has had these annoying companions at one time or other, about the lips and on the side of the tongue, where they originate sometimes from cold, and oftener from derangement of the stomach, and are called apthæ by physicians. Though perfectly simple in character, often disappearing without any treatment, they so closely resemble the chancre above mentioned as to give it a very appropriate name. This resemblance, doubtless, depends upon their situation, and the precisely similar nature of the skin covering the glans or head of the penis, to the mucous membrane of the mouth; both the apthæ and the chancres being directly under the delicate cuticle, or, as it is called, the scarf skin.

This chancre is accompanied with itching, and is often of so slow a progress, that it does not excite the alarm of the patient, till some slight exposure or constitutional derangement, lights up an action,—the poison is absorbed, and bubo is produced. I have known them, no larger than a pin-head, remaining an entire

month in a torpid state, and then, even without a bubo, causing a profuse constitutional eruption, and the greatest distress and mortification to the patient, who, imagining himself quite secure, and not dreaming of the least harm from the insignificant ulcer, had unwisely neglected to seek advice. These chancres admit of the same treatment as those first described. Like them, they can be cut short in the beginning, if decisive measures be taken ; and like them, be followed by the same constitutional symptoms if neglected.

Like all other chancres, the later the patient applies for advice, the more likely he is, either to be subjected to the mercurial course, or to have the constitutional eruption. Nor can the surgeon, as I know by experience, even should the patient apply as early as the tenth day, assure him, in all cases, that he will not be overtaken by general eruption, as I have had this happen directly to myself, as well as under my notice in the practice of a friend distingushed for his skill in the treatment of syphilis. Neither my own nor my friend's patient having ever before had the disease, both having been under the same care for many years, for which reason we were perfectly willing to believe them. Neither of our patients had bubos.

It would seem from the description of Mr. Howard, a distinguished British writer, that there is a variety of this chancre which he terms "the *livid* irritable chancre." He describes it as follows: "From the ginning, painful to the touch, instead of the apthous, it has a livid or blackish hue, with a corroded surface, and hollow ragged edges. It creeps on at a great rate, eating away and undermining the surrounding skin irregu-

larly, like a small spreading phagedenic sore. It is attended from the beginning with much more discharge than the preceding species, and that discharge seems to be highly acrimonious. Bubo comes on much sooner in this than the preceding species of chancre." Mr. Howard describes several species of this ulcer, all of which we have taken the liberty to append as varieties to the apthous chancre, believing them to depend exclusively upon the different constitutions of those affected. Our object in the present work, indeed, is to simplify to the non-medical observer, as far as possible, a subject involved by writers in great perplexity, and to enable the afflicted to form a rational judgment on the nature of his affection.

The fourth and last variety of chancre, is one that has been the cause of more disappointment, both to the patient and practitioner, than any of the others. By its want of resemblance to either of the other varieties, and its complete similitude to an occasional effect of gonorrhea, it produces either a false security, or a temporising treatment, till the appearance of a bubo settles the question, and the patient is necessarily submitted to a mercurial course. It is called the *chancrous* excoriation of the glans penis. It consists of an infinite number of small chancres or papilla, that approximate so closely as to form the appearance of a removal of the skin, or raw surface, which soon degenerates into an extensive ulcer, that looks as though the surface was covered with starch or paste. There are, however, varieties of this excoriation from other causes; as, for instance, where due attention to cleanliness has not been paid,

and the ordinary white discharge, where the foreskin covers the glans, has been suffered to remain and become corrupt. These affections will be noticed in the chapter on gonorrhea. The same treatment is here applicable as to other chancres. The affection is far from infrequent, and I am satisfied that patients have often been saved from a prolonged mercurial course, by the proper application being made to them, with sufficient decision, to destroy their specific action.

These are the ordinary forms in which primary syphilis presents itself to the surgeon. There certainly is very considerable difference in their occasional appearance; yet, as they all produce constitutional eruptions, and other symptoms of greater or less severity, and we sincerely think are capable of rapid cure in their incipiency, they are sufficiently described to give the reader a general idea of the kind of affection for which he should seek medical aid. Yet, when we reflect that the act of coition, under ordinary circumstances, was certainly not intended by nature to be followed by any local injury, we cannot conscientiously abstain from urging the advice upon all who may have incurred the slightest injury to these organs, to seek the aid of an honourable and intelligent surgeon. The hints we shall give in this volume, will aid in distinguishing the empyric, and avoiding his practices.

As chancrous discharges act with peculiar virulence and rapidity upon recent wounds, or even the slightest abrasions or cracks of the skin, about the fingers and nails, it is necessary to observe extreme caution. The writer has seen two severe cases of the disease from its

action on the fingers of physicians, who had attended females in parturition, when afflicted with chancres. It is also frequently conveyed by the fingers to the eyes of patients, and destroys that organ with fearful rapidity. Neither patient nor physician should ever attempt the least manipulation in this disease, without previously providing a bason of water, and forceps, with which all dressing should be done, and never with the fingers.

CHAPTER III.

BUBO.

THE second frequent, though not necessary symptom in the order of occurrence, is *Bubo*, from the Greek Βουβών, the groin—because they usually exist in that part. A bubo is defined, "a painful swelling of a lymphatic gland, produced by absorption of the venereal virus;" although, as will soon be seen, they originate from other causes. Now the intelligent reader will at once ask, what is a lymphatic gland? Throughout every part of the human body, as well as arteries, nerves, and veins, there is another set of vessels equally numerous, called lymphatics. Their specific object, being to convey the superfluous secretions made by the blood vessels, all over the body, back into a large internal and deep-seated vessel, that takes up the prepared food called chyle, and throws it, together with the lymph, into the veins; thus again submitting the whole to the action of the arteries, and converting it to the general uses of the economy. The lymphatics, so called from their conveying lymph, or a colourless fluid, in various parts of the body, as in the groin, arm-pits, &c.,—are convoluted into small knots, called glands. They are also called, from their office, absorbents; those that originate from the private parts, as well in the male as in the female,

go into the upper tier of glands in the groin, or just above the thigh; they are from five to eight in number, and might constitute as many bubos, if the chancres were sufficiently numerous to poison all the lymphatics whence they derive their origin; this is not, however, the case; there are rarely more than two, oftener one. Now as each groin has its own glands, and each side of the penis its own lymphatics, the bubo will originate on the corresponding side with the chancre or chancres. If there were but one chancre, and especially if that should be situated on the lower part, and on the dividing line of the penis, it might produce it on either or both sides. If by chance a chancre should exist on the upper and inner part of the thigh, it would produce a bubo in the lower tier of glands, on the upper part of the thigh: and if on the finger, the bubo would be in the arm or the arm-pit: about the lips or mouth, at the angle of the jaw, or under the tongue. Thus, it is seen, the superficial lymphatics will absorb poisons, as well as fulfil their proper purposes, and thus by external application to them, mercury is often made to reach the gland, and annihilate the poison on its way to the system, for it does not remain in the glans, but if the bubo be not cured, is reabsorbed into the system and enters the blood, producing all the symptoms subsequently to be explained: these are entitled constitutional symptoms.

The first important point to be noticed, in treating of bubo, is, that according to the observation of some very distinguished surgeons, they may originate, (and, as subsequent constitutional eruptions prove) be distinctly

syphilitic, without any chancre or even the slightest visible abrasion. Mr. Hunter has seen instances, and John Bell of London, observes, that he "has recorded upwards of twenty cases." The writer of this work has submitted to the notice of a distinguished surgeon of this city, a case in which constitutional eruption followed a bubo, without a chancre. The patient declined a mercurial course, which was urged upon him from the knowledge of Mr. Bell's observation, and the persistence and suppuration of the bubo. In such cases, (fortunately very rare) we have nothing to help our opinion of the propriety of mercury but the latter points, and I do not hesitate to advise mercury in all such cases, if there be no other sufficient cause for a sympathetic bubo, such as its occurrence after great fatigue, violent jumping or wrestling, mechanical injury of the generative organs, or the foot or thigh, all of which might do so, and if the patient were scrofulous, the bubo would prove very difficult to remove by local means.

The poison from the chancre may also cause ulceration in the small track of lymphatics along the penis, before they become convoluted to form the gland, or bubo. I have known the virus stop and spend all its force in the formation of extensive ulceration at the root of the penis, and form no bubo at all.

A syphilitic bubo, when open and discharging matter, is in all respects similar to a chancre. It is a chancre upon a large scale, and the matter will produce other chancres, if care is not used; hence the necessity of great cleanliness and circumspection. But here

the specific effects end. The constitutional symptoms will not produce their like, even if the matter be applied to the abraded skin.* And now the reader understands the meaning of primary and secondary symptoms. All after the bubo are secondary; the chancre bubo and lymphatic enlargements, if any, are primary.

Bubos usually form within a fortnight or less—the general period not exceeding a week from the appearance of a chancre, although they may be met with at any period of its existence. A chancre may remain quiet for some considerable time, then suddenly become irritated and painful, when the bubo will follow quite unexpectedly. The application of caustic to a chancre, or the rubbing of mercurial ointment on the thigh, may produce a bubo, and one that is not syphilitic, being produced solely by the irritation of the lymphatics. And yet this bubo, of course the reader will see, has a right to become syphilitic, so long as the chancre be not destroyed or healed.

In a vigorous constitution, a bubo proceeds much more rapidly to a termination by suppuration, than in a delicate one, generally ending in that disagreeable result by a fortnight. In scrofulous persons they may last for months, to the great annoyance of the patient and surgeon. And patients should always remember that their cases are peculiarly stubborn, even in the most skilful hands. And here let me remark, that the fretful and querulous stand greatly in their own light:

* The ulceration of the nipples, caused by the suckling a syphilitic child, seems to be an exception to this rule.

in all diseases the recuperative powers of the system are best exercised under an equable state of mind, but peculiarly so in this disease, for reasons known to every man who reflects upon the depressing influence of disease in the generative organs. The patient, then, should cultivate equanimity of temper. It is the special object of the writer to show the difficulties and doubts that environ this disease, even in the most skilful hands, and to enable the unfortunate to shun the heartless ignorance of empyricism.

There are, in several authors of the most distinguished character, opinions advanced that constitutional symptoms will not occur, where the syphilitic bubo disappears without suppurating, to which the most successful practitioners of our country entirely dissent. For myself I am happy in coinciding with them to say, that I do not know a single medical man who has the least doubt upon the propriety of a moderate use of mercurials, in all cases where it is not perfectly clear that the bubo is not syphilitic. And here it must be remembered that the chancre may occur entirely within the urethra, and so closely simulate gonorrhea, with which indeed it may be combined, as to deceive both the patient and physician. Nay, sympathetic bubo will appear in clap itself. I can only say that the patient should rely exclusively, in such cases, upon the astuteness of his surgeon, and I need not urge the latter to give him, as they say in the law, the benefit of a doubt, and incline to prudence. I have nothing to say with regard to the choice of treatment. Rest, leeches, mercurial frictions on the thigh, blisters over the bubo, nitrate

of silver freely applied, moderate pressure, make up the sum of efficient means. And I confess myself an advocate for an early opening, as soon as matter has formed, believing, from my own observation and that of numerous friends, that its absorption is very rare, and that its presence can only produce injury and annoyance to the patient.

Poultices are often applied in the early stage of bubos. This is wrong. We should endeavour by all possible means to prevent their opening; but if it is evident they *will* advance to suppuration, the practitioner who is not confident of his ability to detect matter in its early stage of formation (and that is sometimes difficult, as there is a dense fascia or sheath of membranous structure over these glans,) should apply a poultice till the matter is sufficiently distinct. Warm water, applied by a sponge, is the preferable and more cleanly method; but this is often impossible, as the patient refuses confinement to the house. The practice of opening bubos with caustic is very painful, and I believe now nearly obsolete. The lancet is the method most in use. As soon as the bubo ceases discharging, a solution of nitrate of silver, five grains to the ounce, will be of service in promoting healthful granulations. It may be increased to ten, and even twenty, and if the edges of the sore are hard and indolent, the pure stick may be applied. Yet all this rests with the judgment of the practitioner.

CHAPTER IV.

SYPHILITIC SORE THROAT.

This is very apt to be the first constitutiona symptom, though eruptions on the skin may precede it. There is no specific period for its occurrence, and its appoach is so like that of a cold, that it is often so called by the patient. It is said, and I think justly, by many authors, that this is more likely to occur when the poison has entered the system directly by the absorbents, without the formation of a bubo. They suppose it spends its force there and we know that the bubo delays its entrance into the constitution, for a time at least. A bubo may often be checked in its forming stage by mercury; and then the poison, having also entered the system, either from the same chancre that formed the bubo or another, that shall form none, and an insufficient quantity of mercury having been given to neutralize the constitutional affection, sore throat and other affections may occur. It is in such cases that the profession gains discredit, and it is well to err on the side of prudence, and not to assume a chancre or a bubo to be non-syphilitic, because it soon yields to mercury: very often, if an accurate examination is made, hardness will be perceived, either in the chancre or bubo, and this is an evidence of the propriety of continuing the mercurial treatment.

Sore throat may happen as early as ten days after infection, and it may be months after all the primary symptoms have disappeared. It often appears in the form of an ulcer, copper coloured, and very small, on one side of the throat very far back: it will occasionally remain a long while stationary, and then advance with unexampled rapidity over the arch or curtain of the palate, to reach the opposite side, and on its way destroy the uvula, or hanging palate, as it is often called,—all these parts may be destroyed in a few days. This ulcer is often accompanied with general inflammation and distressing burning sensations, and sometimes distinct erysipelas, if it be not controlled by mercury; it will attack the bony part of the roof of the mouth and ulcerate it through, thus destroying the voice by opening the mouth into the nostrils.

It is here also that the hearing becomes impaired, by inflammation attacking an important tube, conveying air from the mouth to the ear; this becomes closed, and thus produces deafness, air on either side of the tympanum being essential to perfect hearing. A very annoying secretion of mucous is often produced during this affection, causing a constant effort to clear the throat.

The affection with which syphilitic sore throat may be confounded, and thus cause needless alarm, is the ordinary and violent sore throat. To this the patient is quite liable under the use of mercury; and indeed, in our climate at all times: syphilitic sore throat is attended with ulcers of a copper colour, and forming on the surface,—ordinary sore throat, either with general redness of a much lighter hue, or abscesses having matter

within them; the ulcers, moreover, have smaller and buff-coloured crusts or sloughs on their surfaces; and the parts in ordinary sore throat, without being even visibly ulcerated, are often covered with an extensive milky exudation.

There are on the tonsils, or as they are often called, the almonds of the throat, as far back as one can see, many natural irregularities—these must not be mistaken for ulcers. Should the patient have been for some time under the use of mercury, and either have taken it in excessive quantity, or, as is also often the case, been predisposed to scrofulous affections of the throat, other difficulties will arise, which are to be left, of course, entirely to the skill of the practitioner. In such cases, besides the ordinary rule of the preceding history of the case, whether mercury has been taken, &c., as well as the general appearance of the patient, the physician, by a careful attention to regimen, and having the entire control of every circumstance likely to injure him, will run no risk, even if ulceration of a doubtful character should exist, by waiting a short time, and observing the progress of the disease.

During this interval, he will probably test the action of caustic, a remedy of the utmost value, and one which will control more unmanageable ulcerations, under even the most opposite condition of circumstances than any other, nay, we believe, than all others put together. It is here that the most entire trust in the surgeon is necessary, and unhappy indeed is both patient and surgeon if this be not reciprocal. The surgeon, if his heart is right, will not fail, should he deem it necessary, to suggest the

aid of friendly counsel; and when this is done to their mutual satisfaction, he should proceed confidently in the treatment agreed upon, and carry it out to the utmost of his abilities. Then, even if the result be unhappy, that man is recreant to every principle of honour and manly fortitude, who visits his misfortunes (originating in the gratification of his own appetite) upon the reputation of his faithful surgeon.

CHAPTER V.

ULCERS IN THE NOSE AND MOUTH.

Although ulcers of the throat, mouth, and nose, do not invariably attack in the order of their enumeration, still the throat may generally be called the place chosen for the first appearance of constitutional symptoms. Should the disease have been suffered to progress without mercurial treatment, or an insufficient quantity been given to check it when in the throat, and it appear again, it will proceed generally to the mouth and nose, as though no mercury had been given.

The remarks made when speaking of the throat, apply equally to the mouth, with this exception; that when it attacks the roof of the mouth, it will often proceed to the destruction of the bone with great rapidity, a few days after the copper coloured spot first appears, generally in the middle of the roof, the bone may become ulcerated, and a permament opening made into the nostrils, thus impairing the voice, and causing nasal utterance. This fortunately admits of the adaptation of a gold palate; several cases have been thus treated in masterly manner in this city. The first appearance of ulceration in the nostrils, is apparent by a stoppage accompanied with pain at a particular part. With the aid of a speculum, (an instrument for dilating the nos-

tril) it may be seen high up on what is called the spongy bone on one side. A very fœtid and almost insupportable discharge precedes the coming away of the bone itself, and a constantly weeping eye is caused by the stoppage of the tear duct, that conveys the tears down the side of the nose to the nostril. Should the great septum or dividing bone of the two nostrils be attacked, the nose falls and becomes flat with the face. The wing or cartilage of the nose may be attacked, and has been occasionally presented to the surgeon as a cancer, and in one instance had actually been removed by a quack, by means of what is called a cancer plaster,—a most cruel and accursed experiment of those wretches in human shape called cancer doctors; a class of humanity, who seem to have been formed after sympathy was exhausted. And here I would remark, let every afflicted person beware of these and other pretenders:—even after long, long years, he thinks his secret safe, and that the virus is exhausted, these local affections may arise: in the chapter on anomalous symptoms, he will find an account of these reliquiæ, which occasionally pass for cancers, tumours, &c.

There is an occasional result of mercury, viz.: a temporary swelling of the cheek, that may produce alarm in the patient, by pressing upon a broken tooth, and causing the semblance of an ulcer: this is readily understood by the physician. The tongue is liable to thickening and ulceration, that produces a very alarming appearance, and often simulates cancer: it is too rapid in its progress, however, and the history of the case will also be sufficient to determine its nature.

There is one caution to be most carefully remembered by the patient: after mercury has been given, and it has, as it occasionally will, though this is always deprecated by the surgeon, produced soreness or ulceration of the mouth, and it should be discontinued for a time, and perhaps for good, the patient must not, as I have often known them do, continue taking it by stealth, for he may actually produce sloughing or mortification of the cheek, and even death itself; in fine, he should either trust his surgeon entirely, or discharge him.

CHAPTER VI.

ERUPTIONS OF THE SKIN, AND ULCERS.

With the exception of what remains to be said on some of the more serious affections of the bones, we have now reviewed those symptoms that excite the most alarm in the patient, and respecting which the instruction we have endeavoured to give is of the most importance. We take it for granted that having read thus far, he either is or has resolved immediately to place himself under proper care.

There is indeed so great a variety of constitutional eruptions, that it would not comport with our purpose to give their individual appearance as this would also require the aid of the colourist. The skin, as we have said, is occasionally affected before the throat or mouth; but this is not common. The breast and arms are most frequently the first in order of attack. There is very little uneasiness and no pain attending these eruptions: a very slight itching occasionally is felt. Those most frequent are at first of a copper colour, yet of a much paler tint than they subsequently assume; they look often like blotches, and project very little from the skin; on minute examination, they may be found composed of pustules so slightly charged with fluid, that it dries away, and the whole surface may be rubbed off

like bran. They often disappear, and the skin is left sound beneath them, yet, as the reader has already observed, there is no tendency in parts afflicted with syphilis to heal; tenderness or irritability is left, and either immediately or soon after the first blotch has disappeared, another takes its place, a thicker crust, produced by the little pustules forms, and on this being rubbed off, a small ulcer appears.

They have been confounded in their incipient state with tetter or ring worm, and have, indeed, somewhat the appearance in colour and shape, and the fact that they both persist, unless remedies are used. There is, however, no doubt of their nature when ulceration occurs, as the matter of syphilitic ulcers differs very much from tetter, few of the latter yielding discharge. The matter of a venereal ulcer, as we have seen, in the mouth, is viscid and flaky, and appears like melted lard; that of tetter, with one exception, (otherwise sufficiently characterized,) is thin. The history of the case, moreover, will give every reason to suppose what is the nature of the eruption.

There is a pustular affection of the skin, that appears in distinct vesicles, like small-pox. These soon dry and leave a scab. And again, a scaly eruption, particularly about the face, in which one scale will be piled upon another, even an inch in height. This is a very stubborn and unmanageable form. Of course all these eruptions require constitutional remedies, and frequently baths, with a very strict attention to regimen. The patient, if at all intelligent, will rely exclusively upon his attendant. The thighs and lower parts of the body are

last affected,—the hands and face being commonly attacked after the arms and shoulders.

Ulcers.—Besides the ulcers that form in the throat, mouth, and nose, and those that succeed bubos, ulceration may exist in any other part of the body. Yet it is remarkable that secondary ulcers are the last to attack the genital organs, though the primary, viz. the chancre, commonly begins there.

Ulcers about the body usually begin, as we have said in the last chapter, in the form of blotches or pustules. There is a remarkable difference between them and ordinary ulcers that succeed to abscesses, such as boils, &c. They rarely continue on the surface, not only burrowing, but from the very beginning, having a tendency to destroy the parts beneath, as well as the skin itself. As soon as the skin is destroyed, all the parts between it and the bone are often in the same condition Indeed, this rapid destruction of parts, is only common to this disease and mortification: in no others does it happen.

It has already been repeatedly noticed, that syphilitic sores, unlike others, produce no pure matter, nor granulations, at least *till they begin to heal.* They secrete an ill-looking, thin, and bloody, and occasionally a tough and greenish discharge. The skin surrounding them has a diffused red colour, and they are almost always without pain. At a later period, even in healthy persons, they seek the deeper seated parts, and always much sooner in those who are naturally feeble. They are always influenced much by the constitution, and demand varied treatment;—mercurial often, nay always,

at some period of their continuance, and frequently tonic treatment combined.

Erysipelas often attacks the skin around the ulcers, and demands its appropriate treatment, whilst the ulcer assumes such a variety of aspects, that it requires all the tact of a sound and judicious practitioner, to discriminate the varied phases of constitutional affection, indicated by this ever-changing affection. When they attack the bones, I am satisfied that the system best resists their inroads upon the performance of its functions, by a judicious combination of mercurials and tonics ;— amongst the latter that invaluable gift of chemistry, the hydriodate of potass, which is always used by the modern practitioner. There is no tonic like it, and it is no doubt true, that one half the cases that formerly died under protracted syphilitic affections, and the abuse of mercury, are cured by it alone. It is an anchor of hope to the surgeon and patient ; and this is the testimony of almost every practical surgeon.

Nutritious diet, and even porter and wine, is here resorted to, but all must rest with the medical atttendant. The patient must not expect much benefit from any local applications in any form, for he will be disappointed utterly in any amendment, till the poison is checked in the constitution. King David well exclaimed, " There is no *soundness* in my bones because of my sin."

Nothing can be more annoying to a surgeon than the continued desire of the patient for some new application. I have often been wearied by these requests, and oftener felt that an apparent compliance with the pa-

tient's wishes, as to their renewal or continuance, low ered me in my own and his estimation. Indeed, it is far best to assure the patient in the beginning, that you mean to assent to every proposition, however ridiculous that will not injure him. Let *him* prescribe for the sore, and the surgeon for the disease.

A very humorous and scientific friend is wont to tell his patient that he may put every thing on the sore, from "pigeon's milk upward." He may "grease it with every thing but aqua-fortis and lightning"—so long as he obeys the medical prescription.

CHAPTER VII.

NODES AND SWELLINGS OF THE TENDONS.

WHEREVER the bones are thinly covered with flesh, as in the shin, or outside of the arm, the forehead, or the shoulder-bone, as it is improperly and often called, swellings, rarely larger than half a walnut, either soft or very hard, will often appear towards the latter part of the disease. These are most likely to occur either in bad constitutions, that have often been affected, or in those where the disease has been suffered to progress without treatment, but more especially in those who have been much exposed to dampness. They either exist in the substance or body of the bone, or directly beneath the delicate membrane that covers it. When the tumor attains the size of a cranberry, the skin becomes red and tender; gradually it ulcerates in those that do not remain stationary, and upon discharging its contents, the bone itself is found carious: in the state of progression it is exquisitely painful,—this ceases as soon as it is opened. The administration of mercury usually stops the progress of these tumors, and causes them partially to recede. Should the constitution regain its full powers, frictions with appropriate ointments will cause a very slight diminution, but they generally remain enlarged for life.

It is not to be denied that these thickenings of the bone, as they are familiarly called, or nodes, are most frequent in those who have undergone repeated and injudicious courses of mercury; and it has even been said that they never exist in those who have not taken it. And what of this? Does it follow that the patient should not take it? If he prefers the constitutional eruptions and sore throat, with the destruction of his palate, he can be accommodated. In a late very distressing case that came under the notice of the author, it was urged amongst other reasons, by a quack of the homœopathic order, that "mercury rotted the bones, and produced tumors upon them," (these sentiments being shown in Cooper's Surgical Dictionary, a truly distinguished authority,) to the patient. Homœopathy was his only salvation, and he had it, at the expense of a constitutional eruption, and the entire loss of his palate, both processes going on at my first visit.

It is a principal object of this volume to assist the patient in forming a correct conclusion, and to put him so far right in his train of thought, that he may not be victimised by quackery. I shall not attempt to conceal, when speaking of mercury, its actual dangers. One half the trouble from the use of this utterly indispensable medicine, originates in the injudicious concealment of its administration, or an inadequate representation of the necessary cautions to be used whilst taking it. Rheumatism often attacks many of those under a mercurial course, and it is a most unmanageable and distressing affection.

Besides permanent or hard nodes, there are soft ones,

These may strictly be called, separated from unnecessary complexity of definition, collections of matter under the investing membrane of the bones. The same observation respecting their permanency, does not apply to them. If they do contain matter, as soon as it can be distinctly felt, which, by the way, is difficult, it should be released by a puncture with the lancet.

Besides these two varieties of nodes, there will occasionally originate more extensive swellings, sometimes called rheumatic by the patient, in various places over the bones. They are, however, of a much harder nature than swelling consequent to, or accompanying rheumatism; the latter being erratic in its location, and therefore disconnected with the bone; the former are not so. These latter, however, unlike bony nodes, admit of complete dispersion in time.

The sheaths through which the sinews or tendons play, occasionally enlarge, and thickenings of the tendons themselves, with consequent impediment in their functions, occur. Mercury, either by the mouth or friction to the limb, is the remedy for these symptoms—nothing else has the least effect upon them. They are by far the most likely to exist with debilitated or scrofulous persons; and a correct estimate of the actual existing powers of the system, and its capacity to tolerate this medicine, with a judicious combination of tonics, can only be made by the careful and observant surgeon.

CHAPTER VIII.

EXCRESCENCES NEAR THE ANUS, AND SWELLINGS OF THE TESTICLES.

AROUND the verge of the anus, there will at times occur, particularly in such as have often had syphilis, enlargements of the skin in isolated portions: sometimes they project half an inch from the surface; they are round or irregular in form, observing no rule either in the time of their appearance, or shape. The most rapid and least painful method of removing them, is to clip them off with scissors.

Although swelling of the testicle is almost peculiar to gonorrhea, as will be seen when treating on that complaint, still it occasionally occurs in syphilis, where there are no existing symptoms of gonorrhea; for, the reader will observe, the diseases may occur together. Swelling of the testes, in syphilis, is not common, however, and it is only noticed because it does, though rarely, occur, and is from its unexpectedness peculiarly alarming to the patient. The enlargement, as it is appropriately called, to distinguish it from permanent hardening or cancer of this organ, a disease to which it is also subject, appears without pain of an acute kind, and only excites the attention of the patient from its increase of bulk and weight. In the swelling of this gland, that

originates in gonorrhea, the pain is considerable from its commencement, and it extends to the back and loins; it is also much aggravated on assuming the vertical posture, and the patient is glad to seek relief by lying down. The former progresses very gradually, often requiring weeks to attain the size that the latter acquires in two days: this is often, in both, the size of a hen's egg.

To distinguish it from the cancerous affection above mentioned, it may be remembered that the latter is still more slow in its accession, is accompanied with much sharp stinging pain, becomes very knotty and irregular over its entire surface, and soon extends up the cord to the groin. The syphilitic testicle may also be accompanied with effusion of water, constituting dropsy of this part; this is described in another chapter. (See Hydrocele.) As mercury is the only means of cure for this affection, and it removes it with certainty and rapidity, it will soon relieve the anxiety of patients.

The only additional remark I feel it necessary to make, is to urge the patient to submit to the recumbent posture entirely. Nothing is more absurd than to expect the benefit of a surgeon's efforts in alleviating this complaint, than by continuing on the legs, even if confined to the chamber, or sitting, it is all wrong alike. No benefit can follow, so long as the blood is prevented from returning to the great vessels of the body, by compelling it to *ascend* through a long and tortuous system of vessels, before any of it can be driven from the diseased organ. This is, without any exception, the most necessary observance in treating any diseases of the genital organs. The whole of this matter is fully ex

plained in the chapter on gonorrheal swelled testicle, and it will then be seen, that amendment whilst standing or walking about, is considerably more absurd than expecting water to run up-hill.

CHAPTER IX.

ALOPECIA; OR, LOSS OF HAIR.

From what I have heard in conversing on this subject, I believe it to be productive of greater anxiety, I had almost said, than the actual loss of virility itself There are so many causes of a general or constitutional nature for this symptom, and that too in such as have never known any form of syphilis, or ever taken a grain of mercury, that I intend to set forth its nature in the most frequent cases, with sufficient minuteness to preserve, if possible, the illusion of its reproduction by the thousand and one nostrums of the day.

Any person of common powers of observation and reflection, cannot fail to have observed, that the hair is the first point on which the hand of time makes its impress, even in those, who long after the appearance of actual baldness, give the greatest proof of physical power, and plainly show, that they are in the very meridian of strength. Nay, if the proof that is supposed to be beyond all other assurance be wanting, nothing is more common than the birth of numerous children to those who have doffed their raven locks, and whose gray hair and bald crowns, with an erect and youthful bearing, bring to mind an inauspicious spring in our ever-varying climate.

The remarkable difference in the growth of hair after cutting, and its reproduction after ordinary sickness in extreme youth, shows conclusively great difference in the constitutional power of the circulation. Look, for instance, at the brown hue and firm muscle of an urchin we now and then pass, and the doughy appearance of his companion. The one with drooping, red-skirted and lack-lustre orbs,—the other sparkling with health, and reflecting the brilliancy of his eyes upon his wan companion. Shut your own eyes, and pass your hand over the faces of these children. Is it fancy, or is there a great difference in their warmth, and if I may so say, pungency in their skin? The eye-lids and the skin of the head, are both in the same condition. The contractibility of the individual blood-vessels, in the one, is impaired, and they cannot force along the blood, or yield to the action of the heart, so as to feed the glands which produce the hair. The blood is not renewed often enough, and diseases of the skin show themselves in consequence. These are called congestive in character.

Each individual hair is supplied with its separate gland, which elaborates it, and continues its growth from the blood. It is in all respects similar to any other gland, so far as its powers of production are concerned. Now the testicle is a gland, and if we have been at all successful, when speaking of the swelled testicle, the reader will understand that the gland is affected with want of action, or CONGESTION. All this as we see applies, so far, to a state in which there is no syphilitic poison.

If the falling of the hair then, be one of the first symptoms of bodily failure, though, as I have said, so insidious as to be inappreciably connected therewith in its commencement, how much plainer to the understanding does it become, that the depressing influence of severe constitutional disease, nay, the actual existence of a specific poison, in the very glands that produce it, shall effect this result. And if a gland, as large as the testicle, sometimes, and not unfrequently either, should wither, and even disappear entirely, as is well known to surgeons, how far more likely is one much less than the size of a mustard seed, to be obliterated from the same causes? Explain this to your own understanding, and then pester yourself with nostrums if you like.

The first symptom of the loss of hair, is of course its coming out in combing. And if the patient examine the comb, he will find a number of branny scales. This is the scarf skin, thrown off in consequence of the feverish, congested state of the true skin below, in which the bulbs of the hair originate. This state of things will go on till the person becomes bald, and sometimes in severe cases the eye-brows will come out. The beard and whiskers are the last to suffer, and generally resist the disease entirely, or become prematurely grey.

There is but one remedy I have ever known to produce any effect, and this is mercurial in character, and thus its action is explained upon the presumption of its direct anti-syphilitic action. It is the yellow wash, often used by surgeons as an application to syphilitic and other ulcers. Should this fail, I would urge the patient

to make one or more sea voyages, as there is nothing that will elevate the constitutional powers so rapidly, as this measure. Venery should be entirely avoided, and every other excess shunned.

All applications, except shaving and friction, with the yellow wash, are prejudicial. They load the skin, and prevent the performance of its functions. The benefit that sometimes follows their use is due exclusively to the friction.

CHAPTER X.

BLINDNESS AND DEAFNESS FROM SYPHILIS.

When blindness originates from any alteration of the surface of the eye-ball, and comes on gradually, it is sufficient for all purposes to say to the general reader, that it occurs from causes precisely similar to those just explained, in treating of the loss of the hair, congestion of the blood-vessels in the internal tissues of the eye. The reader will remember the caution given him when treating of chancre, and observe that in case of the direct application of the matter of a primary sore, specific effects, and a rapid obstruction of the eye would follow. The blindness now under consideration is a constitutional symptom. Should there be no visible alteration of the tissues or contents of the eye-ball, and sight should fail, then the affection is the result of disease of the optic nerve, and is for the most part quite incurable, as it never happens till the system is so completely broken down by disease, that permanent disorganization of the retina has occurred. So far as my experience goes, no treatment will effect any benefit.

The same remarks apply to diseases of the ear. If there should be discovered any alteration, either in the mouth, affecting the tube spoken of when treating of ulceration there, or should polypi, or other tumors or

swellings have formed in the external ear, then the loss of hearing may be imputed to such alteration or tumor. If, on the contrary, no structural derangement exist, the symptom is owing to paralysis of the nerve of hearing, an affection analogous to that of the eye, and as far as my experience goes, equally incurable.

There is, however, occasionally occurring during the progress of constitutional syphilis, a very sudden affection of both the eye and ear, quite transient in character. It often disappears spontaneously, and is greatly benefited by blisters. It is those affections only that are insidious in their approach that produce the most lasting derangement of these organs.

The eye-lids also are affected with a very tedious inflammation of a similar nature with that of the skin, having this difference peculiar to their structure, which around their edges are glandular. The reader will remember, that it is the office of a gland to secrete or produce from the blood something of a different nature from it. Now the lids secrete a mucus, of a bland and unirritating character, to defend them from the acrimony of the tears, as they form a gutter, to convey the latter to the nostrils, through the minute holes at their junction near the nose. This mucus becomes thick and gummy in its nature, and the eye-lids, unless anointed with some soothing unguent, are constantly sticking together, to the great annoyance of the patient. The affection, however, in common with all others resulting from constitutional syphilis, can only be removed by scientific effort. "All within and without is corrupt."

CHAPTER XI.

IRREGULAR AND OCCASIONAL SYMPTOMS.

There are a variety of annoyances still to be enumerated, occasionally consequent on syphilis, amongst which the most frequent is rheumatism. This is often most aggravating at night, and wreaks its peculiar vengeance upon the shins and head, though other parts of the body are occasionally affected. It has been a question with the medical profession, how far this was due to the administration of mercury, and how far to the disease. If the observations made by so many of our army and navy surgeons be true, that nodes and affections of the investing membranes of the bones, are most frequently to be found in those who have taken mercury, and not in others, it would seem to be due to the mercury; for syphilitic rheumatism is undoubtedly often seated in these membranes: yet, as we said before, what then? will the patient run the risk of constitutional affections and destruction of his palate? for this is the only alternative:—fortunately, we are able to effect the greatest benefit, and often cure syphilitic rheumatism, with that invaluable medicine, the hydriodate of potass. How far the reasoning is correct of those who impute to mercury what may be due to the feeble powers of the system, remains to be proved. I have often seen

rheumatism in every respect similar to syphilis, where no mercury had been taken. A variety of local enlargements occur in syphilis:—the scrotum is sometimes thus affected, and may be confounded with disease of the testicle: the opinion of an intelligent surgeon will best relieve the anxiety of the patient. No directions would avail him to form a correct one of his own.

An affection may be engrafted upon this thickening of the skin, that will test the patience of both the attendant and patient: I allude to an ulcer attacking this part. Now it is generally known, that even if the specific poison should be utterly removed from the system, still these local enlargements are so weakly organized, that if any sore attack them there is little tendency to heal; they resist treatment, and persist for so long a time, that the patient is seriously annoyed with ideas of cancer, and other grievous affections. After a trial of the most approved modern prescriptions, such as nitrate of silver, and rest; iodine; Dupuytren's powder, &c., the writer does not hesitate to recommend excision of the skin, as the best means of simplifying the case; but it must not be forgotten to communicate candidly to the patient that there may be difficulty in healing the wound itself, owing to the same cause that maintained the ulcer, viz: the weakness of the part; still I have several times done it with success. *Sleeplessness, and wasting of the body, with night sweats*, are also occasional consequences of syphilis, and this will often induce the patient to enquire why he does not recover, "now he is cured of the specific disease." Alas, even in the height of vigour, the sun cannot set, but we are one day

nearer the grave; what shall we then say of him, who has imbibed throughout his whole system a poison the most virulent?

And will nature then resume her control, without her offended majesty complaining of the insult she has received, in her sanctuary? No; "the trail of the serpent is left over all," and the offender can only expiate his sin by doing penance, in all sincerity, at her sacred shrine. A long and tedious probation is before him, and the best advice we can offer, is, to select for his adviser a humane and conscientious surgeon, and follow his advice to the letter.

CHAPTER XII.

ARE THERE ANY PROOFS THAT THE DISEASE IS ERADICATED FROM THE SYSTEM.

And now, having enumerated the consequences of contracting the poison of syphilis, we will conclude the symptoms by a reference to a question always put to the surgeon in protracted and obstinate cases. And it must be confessed that it would be very gratifying to our feelings, if we could answer with more certainty, as we could then guard against occasional results, most distressing to the patient, and mortifying to the surgeon. We allude to its occasional re-appearance even years after a cure was supposed to have been effected, and when the patient either has or is about to contract marriage. How long then may the poison remain latent in the system, and what are the best presumptive signs of its presence? The answer to this question may be distinctly given.

Syphilitic disease may and often does appear years after it was supposed to be eradicated, yet we are quite certain that the acute observer will frequently find marked symptoms of its existence in the system. To make this intelligible, we must recur to the manner in which we believe the poison to have first originated, for by it we think we can perfectly explain its appearance

at the most remote periods of its existence in the system. We believe it to be produced by a poisonous change of some matter secreted by the genital organs of either sex, produced by chemical (atmospheric) or constitutional causes, aided by uniting with secretions from the genital organs of the other, whether male or female, of a nature suitable for that purpose, though unknown to us.

There is nothing whatever absurd or unreasonable in this. On the contrary, it is analogous to an immense number of chemical phenomena. Separate substances, whose elementary nature differs only in the proportions of their constituents, not only neutralize each other completely, the compound being totally inert when the separate articles would powerfully affect the economy of the system; and, on the contrary, the union of other substances produce the most poisonous and deadly compounds, when they were separately known to be innocent. And now let us see the bearing of this analogy on the developement of syphilis.

Firstly, there is, as we have seen, no positively certain time for the appearance of the chancre itself. Even six weeks will elapse before it appears. What is the reason for this? It is unquestionably one of two things; either the poison was not sufficiently virulent or concentrated, or the action or living force of resistance of the part to which it was applied, was sufficient to repel it, the poison merely waiting beneath the cuticle, till the system was in a proper state to absorb it, *or to present to it some changed condition of the blood, calculated, by union with it, to develope the chancre.*

If this is fair reasoning, with regard to a primary

symptom, why not to a secondary? And how much more forcible does even this appear, when we reflect upon those cases (rare, though certain) in which no chancre exists, the first evidence of infection appearing —without even a bubo—by an eruption over the body, or a sore throat. And again, add to this those cases in which bad chancres have disappeared at a very late period of their existence, either without any treatment at all, or at best very little, and mild in character, and not being followed by an eruption.

The first evidently finds the circumstances congenial to its developement in the blood, though it had not sufficient power of itself to produce a primary sore. The second, with power enough to produce a chancre, and even a bubo, is not followed by a constitutional eruption,—proving satisfactorily that it was repelled by constitutional causes.

Does not all this look as though the system would olerate a certain amount of the syphilitic leaven, till constitutional changes favoured the production of some chemical principle, essential to its developement? We think so. And here is the reason why we cannot give the patient positive assurance of immunity from subsequent attack. We know not this principle, nor the causes of its production; neither can we detect its presence. Fortunately however, the acute observer can discover its product, viz. certain symptoms, presently to be detailed, indicating its presence. And all our experience goes to prove, that when the patient is subjected to a sufficient mercurial course, under appropriate regi men, he enjoys an almost certain immunity.

It is, however, because of the immense prevalence of quackery, and the irregular use of remedies even in skilful hands, owing to the obstinacy and ignorance of patients, as well as medical incompetence, that we are often in doubt of immunity from re-attack: and we shall feel as though essential service had been rendered the profession, if this candid enumeration of the symptoms and doubts attending syphilis, should arouse the attention of a tythe of the afflicted, to the insanity of tampering with these hydra headed monsters; we mean either the disease of syphilis, or quackery.

When a surgeon is so unfortunate, as to receive a patient who has run the gauntlet of quackery, he is by no means likely to find him willing to submit to rational treatment: medicine, and probably mercury, is demanded with importunity: this the surgeon cannot always immediately grant, for he is not only entirely ignorant of the quantity and effect of what was previously given, but he cannot possibly separate the mental annoyance, which is astonishingly great in these cases, from the effects of the medicine given by the quack.

Should the patient be determined on immediate medication, we know of no method to control him but by placebos the most important, and we speak it with all possible sincerity, should be given by the patient to the surgeon, its operation being not immediately medicinal, but moral and reflex in character; it operates mentally upon both patient and surgeon, teaching the former to value and obey, and the latter that his prescriptions and advice are desirable, because they are payed for.

After this preliminary, with a proper amount of

knowledge and self-confidence, the surgeon may receive enough respect, to observe carefully, without medication for a week or so, his patient's case, and then he will be able to detect, should latent disease exist, some symptoms of its presence; either an acceleration of pulse, sleeplessness, flying and rheumatic pains, and swellings, or some other symptom upon which he can found a rational prescription. In short, if the patient applies to a regular surgeon, after beginning to entertain doubts of quackery, it is generally the surgeon's own want of knowledge either of his profession or of human nature, if he does not obtain a chance to benefit him: we would merely suggest, that to a patient thus situated, the surgeon will probably administer in some form, that invaluable medicine the hydriodate of potass, the chances of benefit being almost certain, even should more mercury subsequently be necessary.

Those formidable and awful affections, wherein the bones, especially those of the skull are attacked by the disease, and exfoliate, laying bare the brain itself, are now almost exclusively managed by this admirable medicine, and cases now recover under its influence, that were but a few years since inevitably fatal. One other question is often asked of the surgeon, of great interest to the patient, and although we are in the habit of answering it emphatically in the negative, other points of great interest, completely contradicting the supposed notion that secondary symptoms are incommunicable, are connected with it.

CHAPTER XIII.

COMMUNICABLE TO THE CHILD BEFORE BIRTH.

Can syphilis be communicated to a female, when there is no sore on the genital organs, or hidden within the urethra? we say it cannot. Yet it can, and often is, communicated by means of the semen, to the child begotten by a syphilitic person, without affecting the mother in the slightest degree; does not this, again, prove that the poison can only be developed when it finds a congenial and co-operative agent, and that, too, of a fluid character, to assist its progress. The reader will observe, it is only known to exist in the father by his past history; for he has no eruption, or perhaps no other appreciable symptoms, existing at the time the child is begotten; he does *not* communicate it to the mother, and the child itself *is* born with a constitutional eruption, and unless mercury is given, will die of syphilis. Why do not these symptoms exist in the father in all cases? because the co-operating agent is not there, in a degree sufficient to cause its developement: the same agent that may subsequently exist, and cover the father with a constitutional eruption.

How do these ulcers in the child's mouth communicate the disease to the mother's nipple, themselves being

secondary or constitutional symptoms, nay, deriving their existence from the comparatively remote source of the semen of the father? The reader will remember, that in the first chapter we promulgated the idea so reconcileable to prima-facie evidence, that the mucous membranes were the natural locality for the original production of the syphilitic poison, and we now throw out another, viz., although the discharges from constitutional eruptions of the skin, and syphilitic ulcers, will not produce a chancre or other syphilitic affection, if inoculated, that they would do so in the mouth, (though it is said, and we do not believe, though we cannot contradict it,) that they will not inoculate the mucous membrane of the genital organs.

Certain it is, that the poison flowing through the blood of the child, however attenuated and removed from its original source, the father, must find something very congenial and co-operative in the mucous membrane of the child's mouth, before it could so far add to its own virulence as to communicate the disease by sucking to its mother's nipple; thus proving it to be equal in power, so far as its powers of propagation extend, to the original poison of a chancre. Does not this fact, also, strongly corroborate our theory of the original production of the syphilitic poison.

We advanced the idea that it was the union of some other irritating discharge, that might not by itself alone produce syphilis, yet when joined with the altered secretions of the female, be adequate to that end. Now the other constitutional symptoms of the infant or adult, it would seem, from the united testimony of all authors,

will not inoculate an uninfected person. Yet the ulceration of the child's mouth not only produces ulceration of the nipples, but the whole train of symptoms belonging to the disease. The mouth then of the infant (a mucous membrane) must furnish the necessary adjunct to produce the infecting poison. And the nipple being also covered with a mucous membrane and erectile tissue very similar in structure with the glans or end of the penis, as well as certain parts of the female organs, again furnishes the necessary conjunction of parts suitable by their structure for its propagation.

That the child may be infected in the womb, is now universally admitted. We have several times examined the bodies of children born prematurely, and covered with the eruption; indeed it is usually the cause of miscarriage with prostitutes, when it comes on without artificial aid. There is no doubt, and again the author's own experience is corroborated by the learned medical testimony of the profession, that very many instances of repeated miscarriage are consequent upon irregularities of life in the husband. Several times we have been called upon to investigate these cases, and have found sufficient reason, upon a severe cross-questioning of the patient, to suspect a syphilitic taint.

The careful administration of mercurial remedies has proved, by the subsequent birth of healthy offspring, that our suspicions were well founded. The reader will observe that in these cases, it is not necessary that the mother should be affected in the slightest degree. The poison is undoubtedly transmitted by the semen; yet when there is reason to believe the child of which the

mother is pregnant is infected, and of this we are to judge by the history of the father's symptoms, and by previous miscarriages, if any have occurred, a cure of the child in utero may be effected by administering mercury to the mother. Among the variety of interesting cases of this kind, for which we have been called upon to pre scribe, one was peculiarly gratifying, and caused us to regret most keenly the errors of more youthful practice.

A gentleman, a school-mate of our own, professedly, and we believe sincerely pious, married in his fortieth year a lady of great wealth and intelligence, nearly his own age. No less than seven miscarriages occurred in rapid succession between the third and fourth month, though the lady, from moral and physical training, was the last person in whom such misfortunes would be looked for. She belonged to one of our Knickerbocker families, and was perfectly healthy in mind and body, and sincerely desirous to have children. Our friend, who had always employed an estimable member of his own church, had sufficient intelligence and candour to say, upon a professional visit, that, suspecting the cause of his misfortunes, he had called upon us, because he feared to confess his youthful errors to a brother-christian, and knowing we made no professions, and our long friendship, had concluded to make a clean breast of it. He had twice been affected in his early youth, and although he believed himself thoroughly cured, had imbibed some doubt from a medical book accidentally falling into his hands. On questioning him, I found him the subject of frequent slight febrile attacks, and sleepless nights, together with occasional efflorescence

or redness of the throat, with much difficulty of breathing, and rheumatic affection. In short, I found sufficient reason to treat him for latent syphilis, and had the gratification to see him the father of two healthy children.*

These cases are very frequent, and it becomes the surgeon to use the sagacity of an Indian, to elicit the truth in some of them, particularly where there is not much intelligence. It is quite surprising to know how extensively falsehood is used, when communicating with the family attendant, of whom there is always more or less fear in these cases, especially if he has been introduced by the wife's relatives. Upon more than one occasion I have had this admitted to me by patients, without the slightest idea of its folly or impropriety.

But are we to suspect the husband only? I fear not. Concealment, either from ignorance or design, is often found in the other sex. Not long since a friend related to me the following case:—A lady, in most respectable life, asked his advice respecting a rheumatic affection, accompanied with swelling just below the right knee. My friend knowing a separation had occurred between the patient and her husband, suspected its possible nature, and on inquiry, found that syphilitic disease had been communicated years before. The lady not dreaming of any connection between the existing symptom and previous disease, was inexpressibly shocked, but

* The children in these cases have an appearance of premature old age, with wrinkled skin, and copper coloured spots about the anus and other contiguous parts: sometimes the eruption is general.

wisely submitted to appropriate remedies, and was cured. This, of course, was ignorance on the part of the patient.

A far more delicate state of things exists, when the wife conceals from her husband and physician, the possibility of an affection before marriage. Even this, and that too in apparently respectable life, is occasionally brought under the notice of the surgeon; and although we ought at all times to let the deportment and connexions of a patient have their due weight, we should not recognize the impossibility of syphilitic taint, from any such circumstances. The surgeon is to remember that the strongest possible motives are here existing for his patient to deceive him. In two instances I have suffered my patients distinctly to understand, that I should use treatment predicated upon the supposition of sy philis existing, and although they had just before made the strongest asseveration of its utter impossibility, no objection was made to the medicine. I required no stronger assurance that they knew my impression to be well founded.

The idea has been thrown out, of the possibility of infection from sources such as the ordinary and natural mucous secretions of a syphilitic person who had no ul ceration whatever; I now mean years after the primary disease, the patient having only the latent taint in the blood. This, it will suffice to say, we do not believe; and indeed the idea is not now entertained by practical men. Though it is communicated to the infant by the father, and may, as we have seen, reach the innocent

mother, by the nipples, it cannot be communicated to the mother without ulceration of the genital organ of the father, or direct application of the matter of a chancre or bubo, by some less probable method.

CHAPTER XIV.

TREATMENT OF SYPHILIS.

After the explicit announcement in the preface on the absurdity of self-treatment, it will hardly be supposed that we intend to give any directions for that purpose. Our object, the discrimination and avoidance of quackery, would not be attained without giving the non-professional reader a general idea of the treatment in use by professional men.

Mercury, in some of its forms, is the only medicine on which reliance may be placed, and the averment of all who promise to cure by any other means, may, in the present state of practice, be taken as evidence of quackery. We now allude to all cases in which it has not previously been given, either by the quack or regular surgeon; for we are well aware of the existence of disease, itself caused by the injudicious use of mercury, and that too in syphilis. In these cases, tonic medicines, of which the hydriodate of potass and the iodide of iron, may be said to rank highest, are indispensable; and whether mercury be resumed at a more auspicious period, when the tonics have rendered the system able to bear it, must depend entirely upon the good sense of the practitioner.

In a word, we fully coincide with the sentiments of

a large portion of the most intelligent surgeons, that mercury, in uncomplicated cases of syphilis, is a specific;—nay more, that it operates by actually neutralizing the poison, directly upon coming in contact therewith. Here we have the high authority of Mr. Bell, who entertains this view. And we really think the evidence would long since have been deemed conclusive, could the learned cobwebs, by any possibility, have been swept away from the brains of some of our most wordy authors.

The ideas entertained of its curative action, such as its operation as a counter irritant, and an evacuant, may soon be disposed of. The former supposed it to obliterate the disease, by establishing another irritation or disease, peculiar to itself. There was an idea formerly almost universally prevalent—that two diseases could not exist, at the same time, in the human system. This is now not only known to be incorrect, but, the reader will perceive, it leaves the poison to be got rid of, entirely by the effort of nature: and this, although it certainly has occurred where no treatment was used, would in an infinite majority of cases, as all experience proves, subject the patient to a sore throat, and constitutional eruption; symptoms that often occur, even when mercury has been given, but either insufficient in quantity, or too rapidly.

The idea that mercury operates by its powers as an evacuant, in the natural excretory organs, as the bowels, bladder, skin, and salivary glands, was natural enough when physicians talked about the necessity of salivation in all cases, and that it was necessary that the

mouth, as well as all the other passages of the body, "should run like a river." This is now reprobated by all intelligent men. Salivation is never necessary, and when it does accidentally occur, owing to the imprudence of either surgeon or patient, 'tis a great misfortune, and always does mischief. How odd it is, that those who held to the doctrine that the poison must "be run out of the body," did not reflect, that as it plainly showed its wonderful power of infecting, by poisoning the whole mass of the blood, although it was a mere atom when first applied to the genital organs, it would be necessary for all the blood to be removed from the individual affected, and an entire new stock supplied. And again, every one knows that mercury operates most effectually when it produces the least disturbance of any kind in the constitution. An expression often used by practical surgeons is, "he tolerates mercury well, and will do well enough," shows the sentiment now universally held by them.

The inability to distinguish scurvy and the mercurial erythema, would undoubtedly be a great misfortune for the patient, should he be so unfortunate as to fall into the hands of an inexperienced surgeon. As it is not our purpose to extend this volume beyond the import of its title, we must refer the medical reader to the works of Messrs. Abernethy, Alley, and Mathias, as they contain all that is worth reading on the subject.

It is scarcely necessary to reason on the manner in which mercury cures syphilis; yet we cannot forbear noticing two points, that seem to us rather unanswerable, as to its specific and neutralizing power. The

first is this—that according to the old method of curing bubos, or in other words syphilis, for the reader knows that the bubo, when it exists, is the store house whence the poison is to go into the blood, mercury was rubbed into the absorbents on the front of the thigh, and these very vessels form the bubo. Now this often melted away the enlarged gland, and they heard no more of the poison,—no, not even when they gave no mercury by the mouth. No evacuations of any kind were produced, and no effect, save the disappearance of the bubo, which we know often produces the whole train of symptoms, and, in our experience, without mercury is given, always ends by the formation of matter. By what agency then, did the mercury resolve these bubos? No visible effect—no matter—and yet a complete subsidence of the bubo. We leave others to theorize; we are content to view it as a neutralizing agent.

The next point is, that its most beneficial effect is produced when it produces no visible disturbance; indeed, we need not always expect to see the slightest redness of the gums, and yet the severest constitutional affections disappear; its action here is equally conclusive as in bubo; according to our limited capacity, it must be specific or neutralizing.

The non-mercurial treatment of syphilis, is adorned with names so distinguished in the annals of hospital surgery, both here and in Europe, that it would ill become us to pass it without notice; and yet it is only our purpose to remark, that although there is undoubted evidence, to show that syphilis has disappeared without the administration of mercury, when the patient has

submitted from the beginning to rigid control in his general regimen, still a very large proportion of these patients had secondary symptoms; and that is what patients, such as present themselves to us in the latitude of New-York, are very unwilling to endure.

Moreover, from the discursive and migratory habits of hospital patients generally, the gentlemen who made those experiments, could not have had the opportunity of knowing in how many the disease returned, after the cure was supposed to have been effected. There can be no doubt of the expediency of administering mercury in some form, as the best and only certain means of cure.

There are a variety of wonderful decoctions, in old authors, and some of them have found their way into the hands of quacks, and are heralded as "certain cures without mercury:" these originated at a time, when the process of cure was entirely conducted without mercury. This remedy was introduced in 1516. I believe that I utter the sentiment of the entire profession in this city, in saying that all who recovered, escaped the disease by the powers of nature alone; nothing then used, could have effected anything in curing the disease: very possibly some of them had a partial effect in supporting the system, but as to curative power they were utterly inert.

Some of these compounds could almost shame the witches in Macbeth for the meagerness of their invention: true we do not read of "eye of newt, or toe of frog," nor "liver of blaspheming jew," but the whole vegetable kingdom was ransacked, to "make the hell-

broth thick and slab," and heaven help the poor wretches, who even now are doomed by quacks to swallow such messes. As for ointments, the "unguentum apostolorum," so called because it contained twelve ingredients, was quite a small affair to some that are gravely set forth as working wonders: indeed, it would be time lost to attempt an enumeration of these worthless compounds: air, earth, and ocean, were ransacked to find them, and there can be no doubt that nature was greatly impeded in her effort to cure, and thousands were sacrificed at the shrine of quackery. Would to God it had ceased with those times.

There are some hundreds of mercurial preparations, yet it is now well known, that but two or three merit the attention of the practitioner, either for uniformity of action or efficiency in small quantity; a most important quality, as some stomachs are so intolerant of mercury, as to be unable to bear it at all, compelling us to introduce it by the absorbents, or rubbing it through the skin.

There is also a method of introducing it through the skin in the form of vapour, by enclosing the body of the patient either in a box or tent, and suffering the head to project; then burning a preparation of mercury within it, on live coals: this method is now seldom used, as few patients will submit to the necessary trouble of arranging the apparatus, yet it has the advantage of acting with great rapidity, and is useful when imminent danger threatens the palate with ulceration; it sometimes checks this symptom very rapidly. This method was proposed in 1776, by the Chevalier Lalouette of

Paris, and was strongly supported by Mr. Abernethy of London. The writer has found it of great use in stubborn local ulcers, that evince a very slow disposition to heal, even when the constitution is under the action of mercury; in these cases it is an admirable adjunct, but is now seldom used in this city as a means of mercurializing the system.

The means used by the author of thus applying it, consists of a small tight tin closet about a foot square, containing room for a chafing dish of coals, on which a few grains of the red sulphuret of quicksilver is sprinkled; the fumes are directed to the sore by means of a flexible tube, its sides being held apart by a spiral wire; the mouth of this encircles the sore, resting upon the surrounding skin. We never apply this method to the body generally, unless the eruption is uncommonly obstinate and extensive; it should be used sparingly always, as it is impossible to estimate its effect, when used in conjunction with the internal administration of mercury.

We have mentioned this method first, not because it is the most, but the least important. The two methods most in use, are inunction, or rubbing mercurial ointment through the skin, and the administration by the mouth.

Inunction has the great advantage of producing the least disturbance. As it does not go into the stomach and bowels, it can produce no disturbance of them, unless very long continued, or used in too great quantity, when it may affect them secondarily. This is the oldest method of cure.

The objection to it is, that it is more troublesome and as very few will submit to confinement: in the great majority of cases, having no eruption, they insist upon going about, and taking medicine by the mouth. When the method is adopted, a scruple of the mild mercurial ointment is to be rubbed into the front of the thigh, twice or thrice a day. It should always be done by the patient himself, as any other person would render himself liable to salivation, by absorbing the ointment through the skin of the hands. It acts with more certainty, if during the process the patient be kept in a perfectly equal and mild temperature. The front of the thigh is chosen, not only from its facility of access, but from the fact of the absorbents passing directly into the bubo, should there happen to be one, thus curing it at once.

It occasionally happens, that the friction itself produces a bubo, should there be no chancre, that having been previously cured, and the ointment being used for constitutional symptoms. The patient will remember, that this bubo cannot be syphilitic. It is only sympathetic, as surgeons say, or in other words, produced by irritation, as when it occurs from a wound of the toe or foot, and also, as the reader will see, in gonorrhea. They rarely suppurate, and will subside on leaving off the frictions, using the other thigh, or the arms for that purpose. From three to five weeks may be required in this process of cure, the surgeon not deeming it expedient to risk the re-appearance of the disease, with less application of the means.

During the use of inunction, no other means should

be used, as it would otherwise be impossible to estimate the amount of mercury introduced, and a distressing salivation might be the consequence. The surgeon will be governed in the length of time for using it, entirely by the appearance of the constitutional eruption, or bubo, for which it is used. It shows its action by tenderness of the gums, and metallic taste in the mouth, and should then be discontinued for a while at least, to be resumed should the symptoms warrant it.

When the method of medication, by inward use is adopted, the preparations most in use are the Pill. Mass. Hydrarg., Hydrarg. Chlorid. Mite., or the Hydrarg. Chlorid. Corrosiv. of the United States Pharmacopeia. The intelligent reader will at once see the impropriety of being more explicit, in a work designed for popular instruction. Though he would make no improper use of a more distinct announcement, there are many who would, and thus great mischief would ensue. So far as the opinion of the author goes, he is at a loss to give one the preference over the other. If there be any difference, the first is the mildest, the second less mild, and the third the most active. They all require to be combined with a small quantity of opium, when used in the customary doses, always chosen when constitutional effects are designed.

The pills of the last are much the smallest; probably for that reason it is most used in this city. The following formula is added for the professional reader:

R. Hydrararg. Chlor. Corrosiv.
Muriatis Ammon—aa—gr. xv.
Aq. Distillat vel. font—℥iss—solut. adde.

Panis Medul. sic.—q. s.
Ut. fiat—Mass. in pill cxx. dividenda.

These may be given according to the intensity of the constitutional affection twice or thrice a day. Should they evince a tendency to irritate the bowels, a pill of one-fourth of a grain of opium may occasionally be given. The other two preparations may be used in the ordinary doses, with which every practitioner is familiar.

I shall say very little of local applications, because I have very little confidence in any great variety. Greasy dressings are for the most part injurious. The nitrate of silver, sulphate of copper, and dry cantharides, with the black, and yellow wash, or dry calomel, will effect all the practitioner can desire,—the former either as a corrosive or stimulating agent, and the others either as stimulants or alteratives. The writer uses the nitrate almost exclusively for all these purposes, governing the strength of the application by the effect intended, whether on chancre, ulcer, or bubo.

I have said nothing as yet on the treatment of what are called tertiary symptoms. These consist of all those enumerated after the affections of the skin and throat. Although this is strictly the professional meaning, the popular one may be said to be, the persisting symptoms—I mean all those occurring after treatment, regular or empyrical, has either ceased, or ought to have ceased.

If I were to state the sentiments of the most thoughtful and observant of the profession, I should say that it is impossible to separate the symptoms of this stage from

the specific effects of the disease and the mercury; and I most candidly add, that these are my own views, notwithstanding the freedom with which I have asserted that mercury is a necessary, nay, an utterly indispensable medicine in its treatment.

A man can only be answerable for his own errors; and I look back with regret upon many that I have committed, in prescribing for syphilitic patients by rule, as promulgated in our colleges. There *is* no rule by which every man is to be treated. Like the varied powers of resistance in the substances surrounding us, every man has his capacity to resist disease for a certain time. Would to God he had equal capacity to resist bad treatment. Yet nature, more merciful than the quack, even in the infliction of evils, does it after a plan,—some warning is given by which to avoid them, if a proper use of the senses are made.

Not so with the medicine giver. He has but one rule, which may thus be rendered: "If a little is serviceable, a great deal is more so." All temperaments are alike to him. The great mass of animal life, that lives but to eat and sleep, who has no thought for the morrow, and the poor attenuated bundle of nerves, whose every day brings its burden of care and sorrow,—the broken down libertine, the delicate and scrofulous youth,—all are subjected to the same indiscriminate and powerful medication, and for an equal length of time. Mercury is itself a most potent irritant, as is evinced by the nervous agitation, the sleeplessness, the thready pulse, that follows its continued use. Yet this is no caution to the quack,—he goes on until the energies of the system are

completely prostrated, and either actual mercurial disease shall supervene, or in the end, the whole train of calamities, succeeded by exfoliation of the bones, takes place.

It is under these circumstances that the great gift of chemistry to medicine, the hydriodate of potass, will effect the most extraordinary benefit. And the practitioner who becomes early convinced of this will be most likely to save his patient from a loathsome and lingering death.

Whilst treating this subject, it will be observed we have made no especial reference to the female. There is no necessity for any difference in treatment, with the exception of the mode of examination and the application of remedies. This must be done entirely through the medium of the speculum, to all chancres within the vagina. The most difficult cases, and it is very common to find them, are met with where chancres exist on the neck of the womb. And as practitioners generally will not take the trouble, and many are without the necessary instruments for examination, these prove exceedingly obstinate, and long resist constitutional treatment. The warmth and moisture of the part is the great cause of this. They require additional stimulus to overcome the relaxing effects of their position. The nitrate of silver will effect the most rapid and favourable change.

The writer hopes he will be excused for his attachment to a bantling of his own. He cannot here avoid saying what has been said in a manner far more gratifying to his feelings by others: that the speculum invented and described by him in Vol. xxx. No. 1, of

the Boston Medical and Surgical Journal, is the most efficient instrument, and can be applied without the slightest pain to the most delicate female.

CHAPTER XV.

ON THE DURATION OF A MERCURIAL COURSE.

It will doubtless be expected that something should be said upon the amount of mercury to be given: nothing could be more gratifying to the feelings of every man who has a proper estimate of professional truth, than to be able to say in the infinite variety of conditions, in which he is compelled to use this powerful article, when it has effected its entire object; when the last particle of the poison was thoroughly extinguished, and a certain immunity produced. His professional experience is constanly teaching him, that errors are committed by his patient in his general regimen; no matter how strictly he may lay his injunctions, his best efforts are constantly thwarted by his patient's folly, and his skill and anxiety set at naught.

Whatever the method by which mercury actually cures syphilis, all agree that it produces its happiest effect, under the most quiet and equable regimen; whether the delicacy of our patient demand the simultaneous use of tonics and nourishing food, or his vigour and plethora compel us to adopt the severer rules of diatetics; hence it is that even in the latter case, we are to effect by the strictest injunction of the simplest diet, that reduction of the inflammatory state of the system,

we could not venture to produce by the more violent means of the lancet or purgatives: for the moment we use either of these, during the mercurial course, we render him liable, by disturbing the mucous membrane of the stomach and bowels, to the rapid absorption of the medicine, and immediate salivation: this it is by no means desirable to do: nay, as we have said before, it is a great misfortune.

We seek to introduce the medicine with the least possible disturbance, and to make our patient "tolerate it" till the subsidence of the constitutional symptom for which it is given, shall show that it has quietly effected its end; when this has occurred, whether for a bubo, a general eruption, or sore throat, the prudent surgeon will not immediately discontinue entirely its use, but watching most carefully the gums, and being emphatic with his patient on the subject of dress, reduce the quantity one-half, and if he bears it well, continue for a fortnight longer.

This is the way to avoid the re-appearance of constitutional symptoms, notwithstanding the occasional remarks of the designing and ignorant, either in or out of the profession. I am perfectly willing to say, that in earlier professional life I often erred from my apprehensions of mercury; that apprehension still continues: for I well know its danger, from the excessive irregularity of young men in everything that relates to a rational and philosophical mode of life: and I also know the frequency with which they visit the consequences of their errors upon their surgeon: all this produces no effect upon the man who means to exercise his best efforts for

his own reputation, and his patient's benefit. The surgeon should tell his patient honestly the effect of midnight debauchery and absurd dress, and then constantly remind him of it roundly, regardless of his feelings: there is no room for feeling in the matter; it is the exercise of judgment and common sense that is wanting, and no man should permit his patient to trifle with his reputation, whatever he may do with his own health.

A patient who is taking mercury and pursuing his ordinary avocations, should exercise such precautions in dress, as to ensure a perfectly comfortable state of the skin at all times; with the exception of the months from the conclusion of May till the first of October, this cannot be done in our climate, without flannel worn either next the skin, or thin muslin (never linen) intervening. The feet must be protected entirely from dampness, and all drafts of air must be avoided.

The diet must be perfectly regular: every young man of common sense knows what will derange his own peculiar system; this he must avoid, whatever the inducement to indulge, for if it derange the stomach and bowels, there must be derangement in the action of the medicine. From four to six weeks will usually effect the disappearance of most constitutional symptoms in first cases; but where a patient has been often affected, and more especially if he should have disease of the bones, there can be no rule whatever, as to the time it will take to remove the symptoms: he should present himself occasionally during some weeks after his treatment is discontinued, and his physician will then be able to anticipate evil, if any should threaten. This is all

that can with any propriety be said on the subject of treatment, in a volume like this; more, the true physician does not need: he has his authorities, to whom he can refer with confidence, whilst his own practical experience is sufficient to guide him to avoid error. We trust enough has been said to enable the patient to avoid the quack as he would a pestilence.

In reviewing the horrors of this dreadful disease, it would seem as though the author of existence had interposed it between the passions of man, and the certainty of her end being foiled by promiscuous intercourse of the sexes; what would be the result were it not so? How many of the human family, with the fiercest of all passions raging in their breasts, and their impulses unrestrained by religion or philosophy, would be desolating the happiness of millions of delicate beings, whose physical structure demands the aid of manhood to sustain her, and enable her to endure the ills attendant upon her peculiar position in life, without the necessity of labouring for bread to feed the unconscious child, that would add so largely to her misery. What a fearful incentive to crime! Can it be supposed that the guilty beings, who would thus bring children into the world, would desire the continued existence of the little gentle things, who can only repay a mother's love by the sweet smile of infantile innocence? No! they would curse the innocent creatures who stood in the way of their vocation, and ere long, if not by neglect, would effect their death by more horrid means.

Wisely indeed have the medico-legal jurists of Germany, when called on to investigate a case of infanti-

cide, agreed to receive the proof of a mother's not having provided clothes for her expected offspring, as strong evidence of her participation in its death. The birds of the air, the beasts of the field, all show this predominant law of nature, by providing shelter for their young, and the inference is wisely drawn by medico-legal writers, that inattention to so universal an instinct, is prima facie evidence of guilt.

A minor degree of this passion, according to the constitution of nature, must ever exist with those whose physical strength is brought into requisition for the protection of their offspring; and I cannot withhold my opinion, that the man who voluntarily withdraws himself from the society of the sex who still retain the dignity and sanctity of virtue, and prostitutes the gentler affections of his nature at the shrine of the harlot, gives to the world the most palpable evidence of a total absence of virtue, and all the graces and poetry of manhood.

ON GONORRHEA

CHAPTER I.

GONORRHEA.

The mucous membrance that lines the cavity of the nose, mouth, and lungs, is liable, as the reader well knows, to a species of disease derived from changes in the atmosphere, called catarrh, or a cold: it is characterized by a discharge of mucus and matter, of various degrees of consistence, and after continuing an indefinite time disappears by the powers of nature alone.

In like manner the mucous membrane of the bladder and private parts of both sexes, which is precisely similar in structure to that of the mouth and lungs, is subject to inflammation from various causes, followed by effects precisely similar, although from the stimulating and acrid nature of the urine, and the different functions of the parts, the disease rarely terminates favourably without active medical aid. This is often called catarrh of the bladder.

By far the most frequent cause, however, of inflammation of the mucous membrane of the genital organs, is, the application of the specific matter of gonorrhea, occurring in coition; we have made the comparison to the lungs, because it will give the reader a very accurate and familiar illustration of its general nature, and greatly aid us in our explanation of the principal symp-

tom, viz: the discharge of quantities of matter without ulceration. We know no more of the origin of gonorrhea, than of syphilis: it has attracted less investigation, because it does not affect the system so seriously as syphilis; nor do those loathsome affections of the bones, nor ulcerations and eruptions, follow it; neither can it be transmitted to posterity, even if existing at the time of their pro-creation; in short, it is confined entirely to the genital organs, and does not affect the blood, though it is highly contagious. As to the period of its origin, we have nothing definite in the books, beyond the time of Moses: see Leviticus, chap. xv.: the same reasoning with regard to the manner, will doubtless apply to both diseases: that it should differ entirely in its nature, is just as natural as that the same earth should produce different products.

It is, when we consider the wide difference in the symptoms and effects of the two diseases, it is almost inexplicable that they should ever have been supposed identical; and it is still more astonishing that so great a man as John Hunter, should have held this doctrine. The one almost invariably proceeding to the affection of the constitution, unless checked by the use of mercury, the other never requiring it, and never producing constitutional affections that would not disappear without any treatment whatever. The chancre almost invariably producing its like, and the discharge from gonorrhea never producing chancre, but a similar affection to itself. The occasional appearance of chancre in those who have gonorrhea is now completely accounted for by the frequent existence of both diseases at once; and

the chancre concealed within the urethra or vagina, accounts for constitutional symptoms in those supposed to have only gonorrhea. The appearance of bubos, as well as slight constitutional eruptions, may easily be known not to be syphilitic by their sudden disappearance without treatment, an event rarely occurring in syphilis. Finally, should not the two diseases, if identical, have been constantly merging into one another, so that it would have been impossible to form any judgment respecting their treatment or progress? Yet even this was supposed to occur, for it was a common impression that gonorrhea suddenly checked would produce syphilis, and mercury was given for both.

The reader must likewise remember, that as there is no definite period after coition for the occurrence of chancre or gonorrhea, the one may supervene unexpectedly upon the other, the contagious matter existing, but from some unknown cause not being lighted into action, both the poisons being received at the same time: and again, the one poison may be received by a subsequent coition during the existence of the other. There is, as was remarked when treating of chancre, a general excoriation of the glands occurring in gonorrhea, that to the inexperienced looks like an extensive chancre; it is the result of great tenderness of the cuticle, causing the discharge of gonorrhea to prove more irritating than usual: this often causes unnecessary anxiety.

The existence of gonorrhea and chancre simultaneously, I have several times noticed, and known them, in one instance at least, to have been contracted from the same woman by two persons; and in another instance, one in-

dividual had gonorrhea, and the other chancre, though neither had connexion with any other woman for a long time previous; both of these persons had been my patients for a long time, and I had their entire confidence. Through the kindness of her attending surgeon, the writer satisfied himself of the existence of both diseases in this woman: a violent gonorrhea existed, and by the speculum we ascertained the presence of chancres on the neck of the womb.

The remedies used in gonorrhea with success, have no effect whatever upon syphilis; and mercurials, as they are used in the latter, do not benefit the former in the slightest degree. This, it seems to us, should be conclusive. The term gonorrhea, is derived from two Greek words, γονη, the semen, and ρεω, to flow; by which it appears to be decidedly incorrect, as there is no semen, but mucus and matter flowing from the penis. Nevertheless, we shall retain that term as usage has sanctioned it.

The disease is vulgarly called clap, from the old French word clapises, or houses of prostitution, occupied by single prostitutes. In French, it is also called chandpisse, from the scalding in passing water. In German, a tripper, from the dripping.

Although the discharge called gonorrhea, does almost invariably originate from direct contact with an infected person, still it may be produced by an altered secretion of the mucus membrane of the vagina, in persons who are perfectly virtuous. I have known several instances in which, from the character of the parties, there was no reason to suspect that the husband had re-

ceived the infection from any other source than a very bad leucorrheal discharge, existing in the wife. I am well aware of the necessary incredulity to be used in these matters, yet where I have had the entire confidence of both patients, I am quite satisfied of such a result being possible. Moreover, the idea is entertained by many experienced practitioners in this city, and is reconcilable to all analogy.

Atmospheric causes will, I am also satisfied, produce a violent discharge from the urethra, accompanied with great scalding in passing water and chordee. Whether this will inoculate a healthy person with the same disease, I am unable to say, as I have always urged caution in those who were thus affected.

I have several times been consulted by boatmen and raftmen, whose occupations exposed them to the weather, and who had certainly no moral reasons for concealment. They have had all the symptoms of clap, after long exposure to wet feet and cold weather. I know a gentleman in this city, who never gets wet feet without this result, and I have a most incredulous medical friend, who has another patient subject to the like annoyance.

I would not be misunderstood. I believe that ninety nine out of a hundred claps originate in the legitimate way, and the more anxious my patient is to convince me, as they often do attempt, that he got his disease in a privy, or in some other than the natural way, the more I am satisfied he endeavours to deceive me. Yet every man of experience can discriminate between these persons. I know cases in which I should be sorry to

believe the most solemn asseveration of persons, whose word in trifling matters might be depended on. Yet where character is concerned they are not to be believed, if interested in deceiving. Patients often take an unnecessary amount of trouble in these cases, for surgeons are the receivers of many secrets, and they generally keep them so long, that they forget where they are.

There is no definite period after an impure connexion, for the discharge to show itself. A few hours, or six weeks may elapse, before the discharge appears. From the third to the eighth day is the most common period. Much depends upon the susceptibility of the patient's temperament, and his manner of living at the time.

The first symptom that appears is uneasiness in the end of the penis, accompanied with perhaps the lightest redness, and difficulty in passing water, the stream being slightly contracted. There is no invariable colour to the first discharge. It is often white, straw colour, turbid, and rarely bloody. This is accompanied with tenderness upon touching the part immediately by the redness. These symptoms may be accompanied with scalding in urinating, or that symptom may be delayed a day or two. The discharge comes not over an inch from the end of the penis.

The writer cannot forbear expressing his surprise, that there should be any practitioners willing to pass by this stage with the trifling treatment often adopted. If there be any truth in practical experience, in nine cases out of ten, should the patient apply on the first or sec-

ond day, the disease may be at once arrested, and weeks of annoyance saved. An injection of from five to twenty grains of the nitrate, according to the physique of the patient, and retained from one to five minutes, will generally effect the cure. It should be introduced with the glass syringe, the fingers being pressed upon the urethra, two inches from the end of the penis. There is no doubt that the timidity of the practitioner often prevents the use of this remedy. I am happy to see, however, a greater distrust in medicine, and a growing reliance on local medication.

In these cases we are not to ask the patient's advice, or to consult his wishes. We are to act for him. He knows nothing about the annoyance of a six weeks or three months' siege, and then a stricture to boot. The popular notion that injections cause strictures, is well known by every practical man to be false. They prevent them, by rapidly curing the disease, and thus stopping the effusion of lymph.

I would not have it supposed that this powerful treatment is to be adopted without due attention to regimen. On the contrary, the physician must have entire control of the patient, if the radical cure is to be adopted. He must be directed to keep his chamber, and consent to live, for a few days, on six crackers and a glass of water per day. The circulation must be kept down, completely, and in cold weather this is peculiarly necessary. Should the first injection prevent the passage of water for a few hours, it is of no consequence; it will gradually pass off. If on the second day after the use of the remedy, the discharge should be almost suppressed, it

may be again used, of half the strength first applied, and its further continuance will rarely be necessary.

I have left it to the discretion of the practitioner, whether to use this injection of five or twenty grains. The effect, the reader may be assured, will prove most emphatically different, if used the full strength, and I do most cordially advise him not to meddle with it himself, as he might be grievously disappointed in the result. Temperament, and the period of the disease, is to govern us entirely in its use. When we have the advantage of a patient who has had much experience in the use of remedies, we can profitably avail ourselves of it in conducting the treatment. A nervous temperament will be most sensibly impressed by the remedy, if used half the strength of a scruple, whilst a lymphatic one will easily bear that quantity.

It is impossible to define the stages of gonorrhea by number of days. Should our attempt at a cure fail, or should the patient be submitted to no treatment, the second stage may appear after a week—rarely sooner. If the patient be fortunate enough to have the discharge checked, he is most distinctly to remember, that all kinds of liquor, hearty food, spices, chills, coition, and wet feet will, nine times out of ten, bring it on again, when the second stage will appear; but as that requires totally different treatment, we refer him to the next chapter.

CHAPTER II.

SECOND STAGE.

We have proceeded so far upon the principle of entire control of our patient; nevertheless, we are well aware that this is rarely possible, the patient either being compelled, or supposing himself to be obliged to attend his ordinary business. Still we should attempt the radical cure, as well as circumstances admit, and we shall often be successful.

The second stage may be known by violent scalding in urinating, chordee, or a constant persistence in the penis to become erected, with partial inability, from the inflammation and construction of its lower part, and an increased and often profuse discharge of greenish matter, often tinged with blood, coming from a much greater distance down the urethra. When this stage is fairly established, the matter comes from as far down as the scrotum, where there are some small glands that have ducts leading into the urethra. These often become enlarged, and may be felt outside the skin. There is more or less pain in the back and loins. It is the natural tendency of this poison to extend along the lining and mucous membrane of the urethra, if no treatment is used.

Those who are not familiar with practice of this

kind, occasionally find it convenient, for various reasons, ignorance perhaps, to say that injections aggravate these symptoms. So they undoubtedly would, if continued in this stage, but if applied for a radical cure, they never can, when used before there is much scalding. The analogy between the mucous membrane of the throat and penis, is perfect, and we all know that the pure nitrate is often applied, when local inflammations are forming there, with the effect of stopping them immediately. The same practice applies to the eye, where the most violent inflammation—nay, that actually produced by the application of gonorrheal matter itself —is often at once obliterated by the same agent.

In this stage injections of no kind are to be thought of. Stimulating ones would greatly aggravate the inflammation, and increase all the bad symptoms; and soothing ones, as they are called, are child's play,—they can do no possible good, and the irritation of the syringe will do harm.

The whole body of the penis may be affected in this stage, and abscesses may even form. These should be opened, as soon as matter is detected, before they break into the urethra, as in that event, the urine would find its way into the substance of the penis, and produce distressing results. Should the patient object to this, or the surgeon delay the puncture, the abscess may break both externally and internally, producing a disease we shall have occasion to speak of hereafter. Suffice it to say here, should this occur, it will so far emasculate the patient, as in all likelihood to hinder him from procreating.

The first step to be taken in this stage, is to direct profound rest of body. The patient, if at all inclined to fulness, should be bled, decisively, and leeches applied along the penis. The diet should be low. For the ardor urinæ, or scalding, there is no remedy like the Liquor Potassæ, 30 drops in half a tumbler of water twice or thrice a day, according to the urgency of the symptoms. In those whose habit of body, or constitutional affections, as of the lungs, &c., may render bleeding improper, nauseating doses of antimony are useful. The antimony may be combined with salts, as an emetico cathartic, should purging be desirable.

Some authors recommend blisters over the perinæum. I have never tried them from a conviction that they must irritate excessively, and do harm; leeches are always preferable. Holding the penis in warm wate is sometimes resorted to with partial relief of pain, which is the precursor of chordee. This symptom is often excessively painful, and is the greatest evil the patient has to endure in gonorrhea. There is no remedy like laudanum, fifty drops of which may be given by the mouth, and a pill of belladonna, hyosciamus, or camphor, deposited in the rectum. The hyosciamus is often given by the mouth, but it requires caution, as it is poisonous. It should only be given by the physician. A laxative of oil will often benefit chordee. A symptom that astonishes and alarms the patient in this stage is, the abundant secretion of matter; he concludes that this implies disorganization or ulceration of the parts whence it comes; but he has only to remember what profuse discharges of matter occur in ordinary catarrh, when

extensively affecting the mucous membrane of the lungs; and where there is no disorganization, or death would often ensue, as in consumption, where there is destruction of parts; this matter is secreted or produced, by the mucous membrane of the lungs and penis, from the blood: there is no ulceration whatever, but simply inflammation. After all the inflammatory symptoms are subdued, the remedies now most in use are the balsam copaiba and cubebs. I shall say no more of their application here, as I shall have occasion to speak of them again; whenever they are proper, they are always to be used in a similar manner. The patient will already observe that although the blood is not poisoned in gonorrhea, it is attended with far more distressing results, to his comfort at least, than most cases of syphilis: as a general rule, a practitioner would rather treat ten cases of syphilis, than one second, or subsequent stage of gonorrhea.

CHAPTER III.

THIRD STAGE.

Authors frequently divide the remaining symptoms of the disease into two stages; but as they comprise affections of the bladder, and its appendages, exclusively, I shall include them in one. This stage commences when the inflammation has reached the lowest part of the urethra, just as it enters the bladder. Surrounding this part of that passage, and lying upon the bladder, in front of the anus, there is a gland of the size and shape of the largest chestnut, which has ten or twelve ducts opening into the urethra. On either side of it, lie the receptacles for the semen, each of which sends its own duct into the urethra, immediately in front of the prostate gland.

It is the inflammation, extending through this gland, and thus irritating the neck of the bladder, that causes the distressing desire to pass water; and because of its contiguity to the rectum, the irritation is extended to that, and the patient is constantly trying to pass the contents of the bowels, but is unable to effect it. This is called tenesmus. Nothing can be more distressing than the condition of one thus situated. From the bed to the stool, and back again, continually, often with constant pains and chordee. Ah me! says he, if I ever

get in this way again! He sends for his surgeon, and on his entrance of course complains bitterly. The surgeon, having possibly left him comfortable, inquires what he has been eating. The reply is, "nothing," of course. Upon inquiry, systematically however, he had ventured to take a glass of wine, or a little ale! This is a common affair to the practical surgeon, and well does he know the trouble of disobedient patients.

Those who are not familiar with these cases, proceed to make examinations, thrusting their finger into the rectum, to feel the prostate gland, and perhaps a catheter into the urethra, to draw off the water. God help the patient; 'tis all unnecessary. The practical man does no such thing, but bleeds his patient, unless there are good reasons to the contrary. If so, he applies leeches plentifully, twenty or thirty at least, and half that number, if he does bleed, is good practice. Fifty drops of laudanum, in a wine glass full of warm water, may be thrown up the rectum, and if that will not stay, a pill of opium may be deposited there. This will control the tenesmus and chordee.

I have often known this state of things brought on by pottering with injections. They are all wrong, whether astringent, emollient, or sedative. All the good that can possibly be done by injections, even theoretically, (we denounce the practice utterly in this stage) is much better effected by depositing them into the rectum. The mechanical irritation of the syringe is highly injurious, and the presence of the mildest injection likewise, and long before its sedative action commences it is expelled, from the annoyance of its distension. Those who wish

to be doing something extra, and we know there are too many such, had much better envelope the penis in cloths wet with laudanum, or solution of belladonna. Injections in the urethra, in short, we deem utterly inapplicable to this stage, or any other, where the symptoms of prostatic irritation, much scalding, or pain in the testicles prevail.

The diet, in this condition of things, must be very light. Toast and tea, or rice, and a soft egg, and an oyster, without any butter or spice, is the highest nourishment admissable, until the urgent symptoms subside. I have no confidence whatever in what are called demulcent drinks, such as gum water, flax seed tea, decoction of mallows, althea, &c.

It happens unfortunately in some scrofulous cases, that swelling of the prostate gland is very slow to subside, and it may remain permanently enlarged. The treatment adapted to these cases is very various, and cannot properly find a place here. It is observed that matter rarely forms in this part. Upon one occasion the writer was requested, by Dr. Bancker, of this city, to operate upon a patient, who had the most extensive disease, all centering here, he ever witnessed. No less than seven distinct sinuses, or false passages for urine, had been produced from the neck of the bladder, in consequence of obstruction in the gland. They were all laid open, and a cure was fortunately the result. We say fortunately, for in such an extensive affection, it was not reasonably to be expected. This case is reported at length in the Boston Medical and Surgical Journal.

There are several smaller glands lying near the urethra, in front of the prostate, called Cowper's glands, from the name of their discoverer. These are quite liable to suppurate, and I have seen several instances where they made their way into the urethra, and also through the skin, thus forming that distressing state of things termed perineal fistula, or a false passage into the urethra, through which the urine passes, involuntarily, whenever a call is made to expel the contents of the bladder. These may often be detected, by great care, before they burst into the urethra. By an external opening, the surgeon may save his patient great distress, and himself much mortification and blame.

Although the subject ot perineal fistula, and what is called infiltration of urine—that is, when there is an opening only into the urethra, letting the urine escape into the surrounding tissues, under the skin—is too extensive to be minutely noticed here, our object would not be attained, without warning the patient of his danger, should he be so unfortunate as to fall into incompetent hands.

Firstly, then, to explain the cause concisely, there can be no such thing as an obstruction in the urethra, sufficient to stop the passage of urine, for more than a couple of days at furthest, without rendering the bladder liable to give way, by inflammation causing its ulceration. This may occur in any part of it. If the obstruction exists in the course of the urethra, however near, as in Cowper's glands, for instance, scarce an inch from the cavity of the bladder, the urine, if it cannot pass, even drop by drop, and a catheter cannot be in-

troduced, to draw it off by, will force its way through the urethra; or perhaps the little gland itself, as we have said, will suppurate and break, thus letting urine out of the urethra, into the loose connecting tissues under the external skin. If left here, it would cause extensive mortification, by its acrid nature. I have seen it left, and continue to accumulate, the obstruction remaining, from permanent stricture of the urethra, (see that chapter,) until it caused mortification of the skin all round the private parts, completely denuding the testicles. It should be freely opened, and as soon as possible a catheter, or flexible India-rubber tube, introduced into the urethra, through which the urine must pass whilst the fistula heals up. Yet this is a tedious affair, and it is often a long while before any kind of catheter will be borne, the urethra being so irritable and inflamed.

It is the duty of the surgeon, if he cannot, by judicious treatment, or an operation upon the stricture, obtain a passage for the urine, and cannot pass the smallest gum elastic catheter, not to let his patient run the imminent danger to life incurred, by a rupture of the bladder, but rather to puncture this viscus through the rectum. This is not to be done until bleeding by the arm, leeches, the warm bath, copious doses of laudanum, the muriated tincture of iron, and clysters of laudanum have been tried, the choice of the remedies depending upon the nature of the obstruction.

The professional reader will see, that these remedies are directed as much against spasmodic as inflammatory obstruction. Indeed, they always go together, and it is on this account that the tobacco enema has been

recommended by great surgeons. I have a horror of this, from having twice witnessed the near approach of death from its use, and cannot urge it, if the potent remedies, above enumerated, have been faithfully tried. I would not use it myself, nor permit it to be used in my own case.

This is a view of the third stage of authors. The fourth is naturally connected with it. It may be known by the pain extending over the whole lower part of the abdomen, and constant and increased desire to pass water and fæces, with great quantities of slimy discharge from the bladder. This separates in time from the urine, and subsides to the bottom of the vessel. There is often intense pain in the end of the penis, and occasionally in the anus. Most of the treatment applicable to the last stage, is equally so to this. Opiate fomentations, over the lower part of the abdomen, may be added, and gentle laxatives of castor oil. We have however two admirable remedies, from the vegetable world, Uva Ursi, and Diosma Crenata. Equal parts of each may be infused in hot water, and when cold drunk occasionally, by the patient, a wine glass full of a strong decoction every hour. This, with laudanum injections by the rectum, and profound rest, will soon relieve from the more urgent symptoms.

After a few days' interval, the use of Balsam Copaiba may be tried. Yet I need not say so active a remedy, under such circumstances, should only be entrusted to professional hands. This medicine acts very favourably in producing tolerance of its contents by the bladder, yet I have observed that where the mucous membrane

of this organ has been much affected in gonorrhea, a long time elapses before the patient feels as he did before his attack. He is unable to bear the least excess ;—wine, late hours, damp feet, women—all have a very bad effect. He must be content to vegetate for a long time, if his attack has been serious, and his habits irregular.

I have reserved all mention of the Balsam Copaiba, and Cubebs, Cantharides, &c., as they are so variously applied by physicians, and that too of equal pretentions to practical skill, that it might seem invidious to speak with great decision on any one method of using them. As a means of controlling the discharge in a chronic stage, they are quite indispensable, yet, for myself, I never use them without other local means.

It is to be regretted that the uncontrollable nature of our patients, in this stirring city, is the cause of our having so many cases requiring these remedies. Were it possible to subject them to early discipline, very few, I am convinced, would require them.

It sometimes though rarely happens, that an excessive flow of blood occurs from the penis, and it has been known to continue with such uncontrollable violence as to destroy life. An instance lately happened to a very careful practitioner in this city, and occurred without any assignable cause. Nothing but the introduction of a catheter, and passing a tight bandage around the penis, controlled it. It was necessary to let it remain an entire week. Should such an accident occur, before resorting to this measure, I would use injections of alum or gum kino.

There is some difficulty in detecting the presence of gonorrhea in women, especially if they should be inclined to conceal their symptoms, in consequence of the frequent existence of leucorrhea, or the whites, to which they are so subject. If, as in the male, there was but one passage, there would be no difficulty, as the ardor urina, or scalding, would make it certain. Yet gonorrhea may exist in the vagina alone, where this symptom cannot occur, and leucorrhea often produces every individual symptom of gonorrhea in this passage.

Should it attack the urethra, which is very short, it soon reaches the bladder, and produces all the usual symptoms, as above enumerated, except the urinary fistula. These do not happen, as there are no obstructions from the enlargement of glands, or strictures. There are none of them near the bladder, as in men. There are, however, small mucous glands around the vagina, and near the larger labiæ, which close the passage. These may suppurate, and they should be early opened, to prevent their burrowing extensively, which they are very apt to do.

As all the other treatment applies to females, as well as males, it is useless to repeat it. The use of injections, however, requires distinct notice. It is quite useless, nay very wrong, to attempt to instruct a female patient in the use of a syringe, for the urethra. The passage is so short, that if the radical cure should be attempted, the injection is dangerous, in careless hands, for it may pass into the bladder, and produce excessive irritation, causing perhaps actual inflammation. Although disagreeable, I fear the practical surgeon must

submit to the duty himself. This is excessively troublesome, yet it is quite unavoidable. A female will use the ordinary syringe, adapted to the vagina, very well. They should always be made of glass, as many of the substances used as injections, act chemically upon metallic ones.

There is one symptom that is laid down in medico-legal authors, by which we may distinguish gonorrhea from leucorrhea. The discharge from the former stains the linen of a greenish hue,—that from the latter is merely albuminous. There is also much more heat about the parts in the former, than in the latter.

I take occasion here to remark, that in consequence of my attachment to the radical cure, I have not noticed until now, the method recommended by some eminent surgeons, of using injections much milder in character, than those I have recommended. There is no doubt whatever, that their known inefficacy depends principally upon the infrequency of their use, and their weakness, and that they should be much oftener used, if designed to have any other effect than irritating the parts, and injuring the patient's prospects of cure. These sentiments are now held by many judicious practitioners.

Balsam Copaiba, notwithstanding the elegant form in which it is got up, in capsules, &c., is a remedy very apt to disagree with the stomach, and so long as there is a choice, I prefer relying upon decisive injections. The popular idea that they produce strictures, originated in medical ignorance and indolence. It is, as all pathologists well know, the long continuance of inflam-

mation that produces them. In the article on stricture, I shall fully explain the theory of their formation.

WARTS ON THE GLANS.—One of the frequent and troublesome consequences of gonorrhea, is the formation of groups of warts over the glans, or end of the penis. They are often very extensive, completely covering the whole glans. They should be snipped off with scissors, and their roots touched with caustic. This is by far the best way to treat them. Sometimes their renewed growth is prevented by touching them with strong acetic acid.

CHAPTER IV.

GLEET.

In the preceding article, we have treated of the immediate consequences of an application of the specific poison of gonorrhea. There is a long train of results often dependant on this, that involves the happiness of the patient to an extent almost as great as in syphilis. Indeed, when we take into consideration the importance of an assurance of their perfect virility to most men, with the greater frequency of these affections, and their more direct influence upon the functions of the genital organs, there is no doubt that they affect their future happiness, if we leave posterity out of the question, to a much greater extent than syphilis.

The jealous care which nature has implanted in the breast of every man, for the preservation of his virility, does not however originate in that instinctive passion, that he shares in common with the lowest grade of animals, but in that more exalted part of his moral nature, the desire to love and to protect some object, physically his inferior;—hence the connexion of sensual passion and the sentiment of love. The intimate union of the two emotions, with their mutual dependence upon the physical integrity of the genital organs, invests this sub-

ject with a degree of interest that can scarcely be surpassed by any department of medical science.

If the practical surgeon, whose abilities exist in a region more exalted than his fingers' ends, were asked to define the cause of the physical and mental inferiority of the young men that meet our gaze at every corner of the street, he would be obliged to say, if he spoke a truth corroborated by his daily experience, that their integrity is impaired either by actual disease of structure, or unmerciful exactions upon their nervous systems. See chapter on spermatorrhea.

A correct definition of gleet, involves a matter of great importance, upon which the surgeon is constantly importuned for information, and which unfortunately he may give incorrectly, producing most disastrous results to the happiness of the patient. We will explain. There are many surgeons who define gleet to be, "the discharge that is left after the *specific* inflammation has entirely ceased in gonorrhea." The patient (perhaps a married man) is desirous of knowing when his disease ceases to be infectious; and here lies his danger. Some surgeons observe, that the discharge must be colourless, and then it will not infect. Granting this were true, and we are by no means convinced of it, we know it may be colourless for weeks, and then assume a perfectly purulent character, precisely as in the second stage of gonorrhea; and then it may again be, and as every surgeon well knows often is, infectious. Now who can say at what period this may occur?

Gleet must exist a long while before all danger of infection is past; how long we cannot say, for we have

known infection communicated in the sixth month. Some very distinguished authors deny this ; but we give simply the results of our own observation, having been severely blamed for being governed by theirs. In one instance particularly, our feeble powers of eloquence were taxed to the utmost, to restore the domestic happiness of a very amiable, though foolish man, who extorted our permission to resume his marital rights, when in truth, we ought not to have given it. Suspicion was excited in the wife, in this case, by the unwonted abstinence ;—and this will often make patients importunate, in order to avoid suspicion. That is his affair, not the surgeon's, who is bound to avoid all responsibility in these matters.

Still we have not defined gleet. It is the thin and generally colourless discharge, that occurs some weeks after the subsidence of all the inflammatory symptoms of gonorrhea.

I have had several cases, analogous to one mentioned by Mr. Bell, in young people, who had been affected months before marriage, having their worst fears excited, a day or two after, by the appearance of a profuse coloured discharge. This however, in all the instances, has been unaccompanied with heat or scalding, and has subsided upon abstinence. Mr. Bell recommends a slight injection. I prefer, however, leaving it to nature, as the cause was excitement alone ; it is more rational, when that is withdrawn, not to interfere. I mention the fact, in order to prevent unreasonable suspicions of the chastity of either party. It is always best to discour-

age the green eyed monster. He is obtrusive enough, to many, without encouragement.

When treating on stricture, it will be seen that the effects of alteration of structure, and gleet, are mutually dependent on one another, and, therefore, that the removal of structural derangement, has much to do with the cure. Here it is not our purpose to go into an interminable discussion, on the subject of active and passive discharges. We think we can do much better, than to offer any ideas of our own, on this most important point, by presenting an analogy, in the treatment of external or conjunctival inflammation of the eye.

There is a period, in the decline of inflammation of that membrane, when all practitioners ought to recognize the propriety of using stimulating remedies, applied directly to the relaxed vessels of that surface. These have the best effect, and the only caution I would suggest is, that a sufficient time should be allowed to elapse between each application, to observe correctly the effect produced, whether good or bad; for it is by no means unlikely, that the practitioner may be compelled to resort to internal medication. The only way is to try, and observe if local means will answer. I should always use them; not only because more immediately agreeable, but from the fact, that I have seen many instances, in which months elapsed, before the distressing derangement of the stomach subsided, after the free use of copaiba and cubebs.

Gleet also has its stages, that are useful for practical purposes. In the first stage, any irregularity of living, will produce aggravation of the discharge. It behoves

the patient to use the greatest care, as he may rest assured, the longer it lasts, the more difficult it will be to cure. From the very nature of the structure, of the mucous membrane of the urethra, its extreme delicacy and vascularity, this is inevitable; and it is quite absurd, for patients to rail at their doctors, when their disease may be said to be so unmanageable, as to be constantly under the influence even of their very thoughts. It is on this account, that they should abstract themselves from all lascivious conversation, and prurient excitement.

The pure air, and wholesome exercise of carriage riding, in the country, will prove very serviceable. The patient should never mount a horse, for obvious reasons. It is a direct irritant to the genital organs, and will always aggravate the symptoms, in the commencement of the affection. Costiveness is to be most carefully avoided. Should the patient have suffered under the second or third stage of gonorrhea, the prostate gland, as well as Cowper's glands, may be involved in the discharge, as well as the mucous membrane of the urethra. And as these glands are immediately in the vicinity of the rectum, not only the distension of the bowels, with hardened fæces, will operate as an irritating cause, but the straining at stool, will aggravate directly the disease.

Such is the anatomical conformation of parts, that two immensely powerful agents compress these glands, as well as all the urinary appendages, within the lower part of the body, whenever the patient is at stool, and the less effort he makes, the less pressure they sustain. The professional reader will see that we mean the ab-

dominal and lavator ani muscles. There is no remedy equal to a little good Turkey rhubarb. Any other is worthless. The patient should keep it in his pocket, and bite off a piece, half the size of a pea, twice a day. Purgative medicines are highly injurious. The rhubarb imitates nature only.

Some patients will persist in swallowing medicine, and using injections, constantly. We should never yield, in the slightest degree, to their whims. Yet I have been surprised, by the patient's curing himself with an injection, made against my express orders. It is therefore much better for the surgeon to try them occasionally. He will do less mischief, if any is to follow, than the patient, who always overdoes the matter. The stronger mercurial solution, is the best remedy, in these cases. Any of the usual injections may answer; but the surgeon never can tell the actual effect of his trial, till several days have elapsed. It often does great apparent harm in the beginning, and at the end of the week the patient is cured.

It will by no means answer, as in the radical cure of gonorrhea, to use these remedies of a powerful strength. They must be prepared with great care, and of the minimum strength, because we do not know the actual state of susceptibility of the membrane, and if we are to do no good, we should, at least, endeavour to avoid injuring the patient. All the precaution of diatetics should be attended to, as in gonorrhea, only the same rigid abstinence is unnecessary, in food, though it is especially so in stimulating drinks.

The food may consist of a moderate amount of ani-

mal matter, avoiding fat, and gravies, which are powerful stimulants. Vegetables are useful for the bowels. No spices whatever; nor would I advise salt food, as that stimulates thirst. The writer confesses complete heterodoxy, on the subject of demulcent drinks, in all ordinary cases, and candidly believes, the less we drink, at all times, the better; but especially so, when the organs for the reception and voiding of urine are deranged. We seek rest for them, and I must confess, drinking always seemed an odd way to attain it.

CHAPTER V.

SECOND STAGE.

Inasmuch as I believe the third stage of gleet to be intimately connected with permanent stricture of the urethra, I shall consider it as belonging to the chapter on that subject. The only benefit to be derived from the division of this disease into stages, is its practical application; and this, I conceive, to be very important here. No person accustomed to treat these cases, if he enjoys any higher range of observation, than what appertains to physical facts, and the mere mechanical treatment of disease, can fail to observe the effect of an obstinate gleet upon the mind of his patient, and to connect this with its operation upon the disease itself.

If the patient be nervous and imaginative, and above all, if he cannot control the many annoying circumstances which often influence imprudent people, the physician may congratulate him upon his speedy cure, on one day, and on the next, without any other irregularity, than some unpleasant intelligence, find him in a state of actual despair, and his symptoms greatly aggravated. This is one evil. A very delicate and sanguineous patient, is so liable to impression upon the slightest change of diet, and boarding is so common, that it is almost impossible to control that; and in our

climate, during two thirds of the year, the regulation of clothing is equally impossible, at least with the amount of forethought those who get gonorrhea, usually possess. Thus it is, that a variety of causes conspire to introduce the patient into a period of the disease, in which, from its long continuance, the powers of body and mind reciprocally act upon one another, and so far enervate the system, as to demand constitutional treatment and tonics. This is what I mean by the second stage.

So far as medicine can exert an influence upon such a case, I know of nothing that equals the syrup of the Iodide of Iron. Twenty drops of this beautiful preparation, thrice a day, in a wine glass of sugar and water, will produce extraordinary tonic effects; and if it is possible to add to it the restorative influence of agreeable society, and good air, with a well chosen diet, the patient will soon be brought up to an ordinary standard of health. Yet there still remains the discharge; and as this is local in character, many suppose that it can only be removed by local remedies; others, that nothing but natural causes can effect it. In truth, there is no doubt that nature is best competent to the removal of every abnormal state, were it possible to submit entirely to her laws. But as this is impossible, and art can only be resorted to with propriety, when it is known to be in direct harmony with nature, we must endeavour to imitate her, as closely as our limited perception will admit.

There is supposed to be this difference, between the condition of parts in pure gleet, and in stricture, which

is usually accompanied with gleet. In gleet, the part of the mucous membrane, where it exists, is supposed to be merely gorged with blood, and puffy or relaxed in its condition. In stricture, either the mucous membrane, or the parts directly beneath it, are permanently thickened or enlarged, by a substance actually produced by the inflammation. Therefore it will be seen, could the puffy condition of the parts resume its tone, the discharge would cease, for the puffiness is only a condition of the blood vessels, in which they throw out, or produce, the mucus.

Stimulation may compel these vessels to subside. The injections were used for that purpose, and if they have failed, we are obliged to resort to other means. The remedy to which I attach the most consequence, in this advanced stage, is the introduction of bougies. It will be understood by the reader, not because he has stricture, but for fear he may have one. The mechanical presence of the bougie, is sometimes very efficacious in altering the action of the blood vessels, and thus stopping the production of the mucus. After a daily trial of this, for a few days, cubebs may be used simultaneously, a tea-spoonful, in any convenient vehicle. If this should be efficacious, it must be continued occasionally, for a day or two at a time, for weeks together, as the discharge is apt to return.

During this late period, the patient may use moderately wine, or malt liquor, if accustomed to it; and observing the effect, continue it, if not injurious. Sometimes it actually benefits as much in this stage, as it injures him in the previous one.

If, after a few more weeks, the disease still persists, a very careful examination must be made of the prostate gland; a bougie, of the full size, must be introduced into the urethra, and then the finger being passed into the rectum, the surgeon will be able to form a more correct judgment of its actual state. I make the suggestion of this mode of examination here, because the books give no such directions in gleet, and I know its value from experience. Whether disease be found or not, in addition to the means usually adopted in that event, I have always found the best results from directing the patient to the sea-side. Mr. Hunter remarked, that more patients were cured by sea bathing, than any other means, and actually directed injections of sea water, supposing that the iodine, in solution therewith, benefited a possible scrofulous state of the gland.

Although, in the treatment of gleet, cubebs has effected the most benefit of any internal means, I have used copaiba, cantharides, and turpentine, with occasional relief. In this stage, an issue in the perinæum has likewise relieved, and the mechanical action of riding on horseback, which we know greatly aggravates the disease in its first stage, has cured it effectually; yet it is much to be regretted, that gleet so often passes into the third stage, or that of stricture, in spite of every remedy that is applied. When this occurs, there is but one remedy, and that is the bougie. On this there is no room for difference of opinion, although the manner of using it is not so well settled.

The subject of seminal weakness and impotence, is one that may be thought naturally connected with gleet,

but as I conceive that to be produced by venereal excess, or masturbation, and that gleet is the immediate cause of stricture, I shall rather proceed to that subject, and leave those for future consideration.

CHAPTER VI.

STRICTURES OF THE URETHRA.

In those who have had obstinate attacks of gonorrhea, stricture is a very common consequence; and inasmuch as gleet is the result of gonorrhea, and only occurs in cases that have proved unmanageable, it almost invariably may be taken as a symptom of stricture.

The importance of a correct definition of stricture, will be very apparent when we speak of the treatment; for it will then be seen, that it must vary with the nature of the obstruction, and can only be pursued without great injury to the patient, when its nature is clearly understood. If we have cause to lament the existence of quackery, and its deplorable results, in other affections of the genital organs, our regrets are, if possible more frequently elicited here, where the ill effects of rude and ignorant mechanical interference, often produces results that no skill or gentleness can overcome.

A single instance will suffice, to show the danger of submitting to irregular practice in these affections; and although it was the result of inebriety in the operator, we hope it will prove a caution to some in avoiding similar practices; for the individual who performed the

act, is an empyric of extensive practice, particularly in strictures, in this city.

A young man, who was supposed to have stricture, laboured under the natural deformity of phymosis; a state of things, in which the foreskin is so formed by nature, that it is nearly closed, and cannot be drawn back, so as to expose the glans, or end of the penis. In such cases, this of course requires to be slit up; see chap. on phymosis. The quack, instead of inserting the knife under the membrane, actually put it into the urethra, and opened that passage full two inches! The writer was called in, by an eminent physician of this city, to operate for the closure of the part. It was fortunate indeed, that he chanced to direct the incision downwards, as he might otherwise have opened the body of the penis.

The size of the urethra, in the male, has of course no definite proportions, varying from eight to ten inches in length, according to its distension, and still more so in its lateral dimensions; its sides lying in contact, when not distended with urine, or when the penis is not erect. A bougie, of a quarter of an inch in diameter, may be passed in some individuals, and others, even in a healthy state, will not admit one more than the eighth of an inch.

Although there have been disputes about its muscularity, there can be no doubt of it, in the mind of any one who has been accustomed to pass the bougie. Indeed, an important division of stricture, is made upon the certainty of its mucularity, viz. the spasmodic. It is lined with a delicate membrane, similar to the mouth

and lips, and is surrounded, between this membrane and the external skin, with a highly distensible tissue, that can, like the body of the penis, be filled with blood during erection. This makes great care necessary, to avoid wounding the membrane, in passing instruments

The reader is already familiar with those causes that may produce a narrowing of the urethra, by encroaching on its calibre, and compressing its sides, viz. the enlargement of the prostate gland, Cowper's glands, &c., occurring in gonorrhea; and although there are other causes, such as wounds, tumors, calculous concretions, &c., that may obstruct the passage, and render surgical interference necessary, we mean to confine our attention to those which come under the following definition, and originate principally from gonorrhea.

Mr. Wilson, a distinguished British author, gives the following:—"A stricture of the urethra, consists of some morbid alteration of action, or structure, by which a part of the canal is rendered narrower than the rest." This is a very complete and philosophical definition, because the expression "alteration of action," will give any intelligent reader, in connexion with the following explanation of spasmodic stricture, a comprehensive idea of a surgeon's meaning, when he speaks of "a mere alteration of action," as contra-distinguished from "an alteration of structure," which is the second great division of stricture.

A spasmodic stricture, is a contraction of a small portion of the muscular fibres, whilst the others remain relaxed. often opposing the entrance of a bougie, for a

short time, and then suddenly allowing it to pass. See Cooper.

A permanent stricture, is a contraction of the canal from the effusion of coagulable lymph between the muscular fibres, outside of the mucous or lining membrane of the urethra, as well as upon and within this membrane, diminishing the passage for the urine, or completely closing it up.—Sir Everard Home, Phil. Trans 1820.

Although these may exist separately, as we shall soon see, we take occasion to remark, that there can, in our opinion, be no case of permanent stricture, without more or less combination with spasm. And this we would urge as a reason for the exercise of the greatest steadiness and gentleness, in passing the bougie. In no case, and under no circumstances, should the mere mechanical passage of a bougie, give the patient actual pain; and that man is doing his patient injury, in whose manipulations this occurrence is more than a very infrequent consequence.

We have said that gleet is almost invariably a symptom of gonorrhea; and although ample experience has verified this in our own practice, we prefer quoting two of the most distinguished European authors, rather than offer our own knowledge on the subject. Our reasons may not be obvious. We design this book as an aid to the practitioner, as well as a warning to the patient.

It often happens, upon a serious announcement of the actual extent of his evils, and the necessary means for their removal, the patient, who has always a desire to

be cured by medical means, immediately calls to mind the assurances of quackery. He has no notion of structural derangement producing gleet, and upon the bare mention of a bougie—the mildest and only means of cure—hastens at once to the quack; and when he discovers his error, his difficulties have greatly increased, rendering, perhaps, measures of a more complicated nature absolutely unavoidable.

John Hunter remarks:—"The spasmodic, and more especially the permanent stricture, are generally attended with gleet. The latter complaint is often suspected to be the only one, until all efforts to procure a cure are found to be useless."

Benjamin Bell, p. 147.—"It is somewhat remarkable that the formation of strictures is often so gradual, that a patient is not sensible of their taking place, till the disease has been of long continuance. Being seldom attended with pain, till the flow of urine is much impeded, any partial degree of it passes without notice, by which they are apt to be rendered much more fixed and permanent, than they otherwise would be. The patient, indeed, has seldom any suspicions of strictures, till the surgeon, for his own satisfaction, where gleet continues for a long time, proposes to introduce a bougie. Gonorrhea having given rise to gleet, any difficulty that occurs to the passage of urine, is considered to arise from the same cause; and thus a great length of time often elapses, before any such examination is made as can, with any certainty, lead to a discovery. This proves often, in its consequences, highly distressing, and ought therefore to be as much as possible

guarded against; for strictures, by long continuance, become much more firm, as well as more extensive, than they were at first, by which they become much more difficult to cure. Cases, which at first would have yielded to the first attempt with bougies, are, by delay, often rendered so obstinate, that nothing will relieve them, but the most exact application of bougies, continued for a long time."

Sir Astley Cooper remarks:—"The earliest symptom of stricture, is the retention of a few drops of urine in the urethra, after the patient has made water, which drops soon escape and wet the linen."—"The next thing noticed, is an irritable state of the bladder, evinced by the patient not being able to sleep as long as usual, without discharging the urine."—"As the disease increases, the stream of urine is forked, spiral, or scattered; and in a more advanced stage, the water is often voided only by drops, especially when the urethra is under the irritation of cold, or intemperance." In these cases, Sir Astley advises the introduction of a bougie; and if one of a common size can be passed, the difficulty depends upon enlargement of the prostate gland, as this would, from its distensible nature, admit its passage, but, from its increased general enlargement, prevent the stream of urine, by any ordinary effort of the contraction of the bladder.

In addition to these symptoms, the patient will observe an immediate effect, particularly after drinking liquor, or leaving a warm room, and going into the cold air. There will be a difficulty, more than ordinary, and often for a short time, a complete inability to pass

water. On returning into a warm atmosphere, he will be able to urinate.

Nocturnal emissions of semen, are a very frequent symptom of stricture. Nothing also is more common, than for a strictured patient, shortly after coition, to have a discharge of matter from the urethra. This is often supposed to be an attack of gonorrhea, and is treated accordingly, the patient congratulating himself upon a speedy cure. Upon the frequent recurrence of this, he, perhaps suspecting the cause, and receiving a more minute examination, learns the nature of his affliction. I have known actual suspicions of a wife's chastity, thus excited, in a newly married and rakish husband.

The reason why those who have strictures, are unable to retain their urine as long as healthy persons do, is this:—In consequence of the stricture, and the difficulty of urinating, the patient defers it as long as possible, and thus the bladder, being constantly kept upon the stretch, its muscular fibres lose their patience, as it were, and become irritable. This will gradually produce thickening of the bladder, and if the stricture is permitted to remain, serious and fatal disease may ensue.

The writer has a patient, now under care, in whose case this has occurred. The strictures are so numerous and complicated, that it is doubtful if they can be dilated before death occurs, from irritive fever, and general exhaustion. This person has, for so long a period, retained the contents of his bladder, until compelled to urinate, that the urine has been absorbed continually, and thrown off by the skin. It is quite unpleasant to

sit in a close room with him, in consequence of the strong smell of urine, constantly escaping from his entire surface, whilst the disease of the bladder and prostate gland, causes a constant discharge of pus and mucus, which escapes, drop by drop, from the urethra.

Should no effort be made to overcome a stricture, and it becomes quite impervious to the passage of urine, either ulceration of the bladder, or of the urethra, between the stricture and it, must occur. If the former, almost inevitable death; and in the latter, as in the ulceration of Cowper's glands, an opening through the skin, or a permanent fistula will occur. The latter, with any one who has much pride of character, is about equal to death, and more than one case of suicide has occurred in this city, from that cause.

Disease of the kidneys will often exist, in a greater or less degree, from stricture. They become oppressed with urine, which it is their office to produce, not to retain. Ulceration and death is not uncommon from this cause. Occasional, sudden and violent attacks of fever, with an intensely cold stage, followed by one of equal heat, may occur.

There is nothing to prevent the existence of many strictures, though there are rarely more than three, and these are apt to occupy definite positions, in their distribution in the urethra. The most frequent position, is the one nearest the bladder, averaging from six and a half to seven inches, from the end of the penis. These, and if we consider diseased prostate a stricture, which it is, so far as the effects are concerned, are the most difficult to cure. The next position is about three and

a half inches from the glans, or end of the penis, and the third, is often within an inch of the opening of the urethra. I doubt whether there is any definite order in the comparative frequency of these two. The first mentioned, or deepest situated, usually exists, whether the others do or not. The two latter often exist together.

Those which originate from wounds, and other causes than gonorrhea, and enlargement of the prostate, have no definite position. They are, comparatively, very rare, and the rules that concern their treatment, do not differ from others.

We have left the systematic enumeration of the symptoms of spasmodic stricture, till the last, because when not combined with permanent, it is the most infrequent. It is often called irritable urethra, because there is no definite part for its attack. It depends upon general irritation of the mucous membrane,—and as that is the condition preceding inflammation, and the most efficient treatment, is such as we adopt for that state, the symptoms will be found analogous to ordinary inflammation of that membrane,—or, that which is not specific in character, viz. general uneasiness over the whole extent, with more or less pain in passing water, and sudden spasms, particularly on going into the cold, from a warm room. In this respect, it is like permanent stricture. The urine differs in its stimulating property, and often, upon any unusual change of living, it will become excessively painful, and produce violent spasm, and temporary stoppage. The passage of an instrument causes instant spasm, and its progress is arrested, for a greater or less length of time.

I conceive it to be so well settled, that gonorrhea is the great cause of stricture, that I shall assume it to be admitted, and again quote Mr. Bell, because his authority is sufficient to overthrow all the cavils of the inexperienced, on the absurd idea of injections causing stricture. There is one reason however, that reduces this notion absolutely to an absurdity, and that is, that the most frequent position of stricture, viz. nearest the bladder, is where the injection never reaches. Moreover, would it not be infinitely more likely to produce it in that part where it most readily finds access, viz. the middle of the urethra?

In the following passage, a good idea of the manner of their formation, is given. Mr. Bell says: "Instead of injections being a frequent cause of stricture, I have much reason to think they are more effectual than any other means of preventing them. Although I have admitted that strictures are sometimes produced by severe degrees of inflammation, I do not consider that as a frequent occurrence. Strictures, I conceive to be, most frequently, the consequence of a state directly the reverse of inflammation. In a great porportion of cases, they will be found to take place, where, either from no injection being used, or from some other cause, the discharge has gone on to a very unusual extent, where all symptoms of inflammation were gone long before, and where nothing but a gleet remained. At least this has been the result of my observation, and I believe it will be admitted by all who have paid attention to the point in question.

"I therefore conclude from this, as well as from ap-

pearances which these parts exhibit on dissection, that this variety of obstruction depends upon a state of morbid relaxation, or debility, induced in these parts of the membrane of the urethra, upon which the inflammation at first fixes with most violence, and from which the subsequent discharge is, in a great measure, produced."

The whole treatment of every mucous membrane in the body, whether that of nose, eye, or mouth, corroborates this idea. In all these cavities, we recognize precisely the state Mr. Bell describes, and in their passive stage treat them with powerful stimuli—even with pure caustic.

The writer, and one, at least, of his friends, universally admitted to be one of the best practitioners of this city, treat leucorrhea by the speculum, and pure nitrate of silver, with certain success. And this is a perfect analogy Leucorrhea would often assuredly be stricture of the vagina, if the passage were narrow enough to render this possible, and the principal use made of it had not a preventive effect. No doubt we could apply nitrate of silver, with benefit, in bronchitis, as in pharyngitis, could we get at the lungs to do it.

So far as the analogy of general treatment goes, stimulation, or nutrition, is the best means of cure. At any rate, the Sangrado practice of bleeding, purging and starving, that has filled the grave with thousands, is now done away with, unless in the hands of a few practitioners of the last century.

CHAPTER VII.

CURE OF STRICTURES.

Inasmuch as strictures present, from their different degrees of density and extent, varied amounts of resistance, it follows, that agents, corresponding in power, must be used for their removal. Some strictures are so slight, that they may be represented, in extent and resistance, to the bougie, by a piece of thread, passed round the urethra. These are not common, as patients rarely apply, till they may be compared, in extent, to a piece of narrow tape. And again, there may be a combination of both these, or a whole inch, or more, in extent, of the urethra, may be implicated in the narrowing of the passage, to a greater or less degree. Rare and incurable cases exist, in which, from entire neglect and inflammation, the whole urethra is closed. Of course, in these cases, there is an opening and fistula, near the bladder, produced by ulceration.

There are three means of cure, occupying the order in which they are enumerated, as to the propriety of their choice, though this depends, in some degree, upon the nature of the obstacles to be overcome; 1st, dilating the stricture by bougies; 2d, the application of caustic; 3rd, incising the stricture with a small lance, concealed in a catheter or tube, or cutting down from

the skin upon the stricture, and then passing a catheter for the urine to run off by, and allowing the part to heal up over it.

The first, is the method adopted by careful and persevering surgeons, whenever possible. It is destitute of pain, or danger, and will overcome all but the worst cases of stricture, if faithfully and methodically applied, to a patient having sense enough to do as he is directed.

The second, with the beautiful improvements of the instruments used in its application, is also a safe, and not a painful method, in very careful hands. It is adapted to those cases which resist the former method of treatment. The caustic acting as a destructive agent to a very limited extent, if at all; the smallest piece, not larger than a pin's head in size, being used. This agent, moreover, must take the place of the third, when the first is impracticable.

The third, or incisions by either process, is only to be used in desperate cases, although, in the hands of a skilful surgeon, it is not a desperate remedy, by any means. Of course every patient would choose this recourse, rather than submit to the only other alternative, ulceration of the bladder itself, or a permanent opening between the stricture and the bladder, or a fistula, made by the surgeon. Of the two methods last enumerated, the incision by the concealed lancet, is by far the most desirable; yet this is only applicable to the least extensive strictures, of the worst class. The worst always demanding the incision from without, or through the skin.

There is no such thing as treating a querulous and discontented person for stricture, with any advantage; and the surgeon who will consent to do so, is more regardless of his reputation than the writer. The mental depression of the patient, in all these cases, is almost incredible; and the humane surgeon will always give his patient every possible assurance of comfort. But it should be remembered by the patient, that it requires some slight application, and a few years of study, to understand the detail of a matter, that may all seem very simple to him; and he may think unreasonable diatetic regulations are enjoined; but let him remember it is a mutual and honourable contract between them—the surgeon and the patient. The reputation of the former, and the happiness of the latter, is at stake. The surgeon is to do his duty, the patient is to obey, or it is the surgeon's duty to leave him. He has no right to risk his own reputation or the patient's cure.

Bougies are now made either of linen or catgut, coated with India rubber, or of a very flexible metallic composition, perfectly smooth, and the ends evenly rounded —not pointed. The linen ones are now most beautifully made in Paris. We prefer them much to all others. They taper so perfectly and gradually, that a point for the smallest stricture, receives adequate support, whilst the necessary gentle pressure is made, to cause its entrance into the stricture. Previous to their use, the metallic bougie had to be used for all small strictures, the finest linen English ones curling up in the urethra, upon the slightest pressure. They were good for nothing.

The non-professional reader may imagine that the bougie acts upon mechanical principles, dilating the stricture like a wedge. This is even asserted by very high British authority; see Cooper. But we think the idea of dilating living animal fibre, absurd. The bougie could effect no benefit, if it dilated only. The part would, immediately it was withdrawn, approximate as before. It operates like all other pressure, by producing absorption.

If the smallest bougie can be made to enter a stricture, and the surgeon and patient will persevere, the cure can be effected by that method. It often happens that spasm occurs instantly upon the introduction of a bougie. Steady and gentle pressure will always overcome it.

The greatest care should be used in the selection of bougies without flaw in any part, but particularly near the point, as they might otherwise break off, and thus enter the bladder. In such an event, (and it has happened in this city,) the operation of opening the bladder, or lithotomy, would have to be performed, as a stone would soon form round the piece of bougie, or its presence cause inflammation of the bladder and death.

In passing the bougie, after the surgeon has used gentle and continued pressure, for a minute or two, he should withdraw his hand suddenly, suffering the bougie to remain, but holding the penis gently grasped in the other hand. If the bougie recoil, it has not entered the stricture, but doubled upon its point, and on withdrawing it, he will find it bent. Should it not recoil, and resist gentle traction, it has entered.

The surgeon is not to expect, when he first passes a bougie, with a well tapered point, that when it passes, should it do so, (and this is by no means certain, even in small strictures,) completely through the obstruction, that he will feel it pass through. This he cannot do, for it is a wedge. But after he has used several sizes larger than the one he began with,—and this will take several sittings,—he can then try a round pointed one, of suitable size, and it will often go through with a jerk, and thus he can judge of the extent of the stricture.

When the patient is used to the bougie, for it often produces faintness at first, the surgeon may introduce, as was the practice of Sir Astley Cooper, two sizes at a sitting. The time a bougie is to be permitted to remain in the urethra, is to be judged of entirely by the feelings of the patient; much pain should never occur At first, only a minute or two each time; gradually longer, till ten or fifteen minutes elapse. Patients differ very much in their capacity to endure them. After a few weeks, they may bear them for hours, and even all night. It is often convenient to introduce them on retiring, in order to save time, as well as irritation, when it is necessary they should remain a long time.

The increase in size is to be governed entirely by the density of the stricture. If firm it will necessarily be slow; if otherwise more rapid. As soon as the surgeon judges that the full size of the urethra is attained, and he can pass the instrument with facility, he may entrust it to the patient himself, who had better use it for a quarter of an hour at least, every night for a month, then twice weekly, and so on, for a few weeks

Here the surgeon's duty ends; for it is not to be denied that the stricture has a tendency to return; and the patient can keep himself clear, by its occasional use, as well as the surgeon. After a year or two, however, it often happens, if patients live regularly, it disappears entirely.

Cure of Strictures by Caustic.—When, from the extent, or density of a stricture, it becomes impossible to pass a bougie, either caustic must be applied, or it must be pierced with a stilet, or lancet, as hereafter to be noticed. Although we have advised the use of the bougie alone, when that would suffice, we have stated that strictures, thus treated, are apt to return.

In 1752, the great John Hunter, of London, first applied caustic to a stricture, in a very impracticable case. After three applications, he observed that the man "voided his urine much more freely," and on applying the caustic the fourth time, the canula, or silver tube, through which it was passed, on the end of a small bougie, "went through the stricture."

Sir Everard Home observes,—"Having met with a number of facts, from which a general principle appears to be established, that the irritable state of a stricture is kept up, and even increased, by the use of a bougie, but lessened, and entirely destroyed, by the lunar caustic, I am desirous to recommend the use of the caustic, in many cases of irritable stricture, in preference to the bougie." Mr. Home goes on to detail a number of cases, in which permanent cures were effected, during

many years, and speaks very warmly in favour of the method. In short, he adopted it "as a general practice.'

There is no doubt that in all difficult cases, and particularly in irritable strictures, the careful use of the caustic, is far preferable to the lancet pointed bougie. We have often had occasion to use it, and have never met with any ill effect. But we have been exceedingly careful, and never apply it oftener than once in three days. In cases where the patient has experienced pain for several days after the passage of a common bougie, and has dreaded its introduction so much, that I feared his inability to bear it, I have, unknown to him, used a very small piece of caustic, and such has been the relief afforded, that, after two days, I have introduced the bougie entirely without pain, and he has urged me again to resume it, on discovering the cause of his ease. It is unquestionably an admirable assistant to the bougie, when not used to the extent, or with the object of destroying the stricture. I never use it for this purpose. When the smallest quantity is exceeded, in bad cases. it requires great care, though I always prefer it to incision.

The necessity of the greatest caution will be apparent, when we reflect, that the effect of caustic is in a great degree indefinite. There is no telling with certainty the actual effect it will produce, nor with invariable accuracy, the direction its action will take. Yet I think both these results may be calculated, with far more certainty, than they have hitherto been supposed capable. The first, however, is always, more or less, under the control of the cautious practitioner, who is

never anxious to do too much at once; and will, therefore, use the caustic more sparingly, only applying it for a short time, and fastening it so firmly in the end of the bougie, that it will be impossible to drop out or break off.

In regard to its direction, so as to be applied precisely to the centre of the stricture, I am satisfied, that if the mechanical means were always well chosen, and the instrument prepared with rigid and mathematical precision, so as to be adapted precisely to the *structure* of the part, there would be no difficulty. But surgeons are not all possessed of mechanical skill, and instrument makers are often both stupid and inattentive. I have always been obliged to prepare, with my own hands, the instrument I am about to mention, and as it is designed for the professional reader, I shall describe it with accuracy. He may be more fortunate than I have been, and by close personal attention, get an instrument maker to prepare it for him, should he think proper to adopt it.

There is but one way to ensure the bringing of the catheter, directly opposite the stricture, so as to have its centre, and the centre of the end of the catheter, precisely opposite each other. That way, is to select as large a catheter as the urethra will admit. A small one not only never passes with more ease, but, inasmuch as it is not directed by the pressure of the urethra, which operates evenly all round, it is apt to deviate by any unconscious movement of the hand of the operator, and have its point directed against the urethra just on one side of the stricture, or above, or below it.

Not so with the larger one, which, directed gently, the patient always standing at ease, and never sitting, is almost sure to feel no undue influence of the hand. When it will pass no further, the surgeon must hold it with his thumb and two fingers only against the stricture, which will now be directly opposite the centre of the end of the catheter. Now, as these are commonly constructed, the object being to draw off the urine only, the bore, or cavity, is made of equal extent up to the well rounded end ; and if a small hole were made in one thus constructed, there would be great difficulty in passing a gum elastic bougie, with the piece of caustic in its end, through this hole. It could not be directed to the centre, for the same reason a small cathether would not reach the centre of the stricture, viz. want of lateral support and direction. Let the catheter then be made with one inch at the end, to unscrew;—it can be done with perfect neatness;—fill this with melted lead, and then drill a hole through its centre and end; with a small penknife, make this hole a regular cone, with its apex, the opening in the end, and its base, merging into the sides of the catheter. Burnish it well inside, and then screw it on.

We think, when the caustic is once passed through a catheter thus constructed, the surgeon will never use any other. He may rest assured, it can go no where but to the very centre of the stricture. I always fasten the nitrate in a hole, made with a brad awl, in the end of a gum elastic bougie, and then, with a hot wire, melt the gum immediately surrounding it, so as to make it grip the caustic, which should be an oblong piece, as

thick as a large pin head only. No mechanical contriv ance will hold the caustic, or suffer it to be passed through the catheter, better than this. Its flexibility allows it easily to take the necessary curve of the catheter, without displacing the caustic.

The great advantage of having one instrument to suit every case will be apparent to the reader. Indeed we cannot see how the caustic could possibly have been applied to the stricture with any certainty, when either the bougie alone, or that with the straight canula was used In the armed bougie the least excess of pressure must have tilted up the point, and thus misdirected the caustic, and the straight catheter must have been very awk ward to apply to the curve of the urethra : it will be remembered the worst strictures and those that oftenest require the caustic, are there.

It is impossible to say how often the caustic should be applied, as it depends entirely on the extent of the stricture. The interval also will depend upon the subsequent symptoms. It has been said that it should not be again applied till the slough or part that was destroyed by the first application, separates, so that it may be again applied in a new place, thus producing another slough : indeed, this is the idea conveyed in the term, " destruction of a stricture " by caustic ; we dissent in toto from all such practice.

Let us examine this subject: a little close thinking will do such important matters no harm. The mucous membrane of the urethra is a very delicate structure, and is its only proper sheathing : it is so constituted by nature and lubricated with its proper secretions, as to

be quite contented to convey that variable and acrid fluid, the urine. Secondly: it is a fact universally known, that all cicatrices the result of wounds, but more especially of such as are made, whether by heat or other chemical agency, have a constant tendency to contract. This is often observed to a great extent, in burns and scalds.

Now look at the practice: the mucous membrane, if a slough is produced, must certainly be destroyed, presenting in that part a cicatrized surface, unsuited to the urine, and by its very nature tending to contract. Thus the very thing we are endeavouring to cure, is aided to return by the means used to remove it! This is no hair splitting—the writer has been obliged to incise a stricture greatly aggravated by this treatment; frequent total suppression was often produced by slight excess in urine or wet feet. It was by no means a very bad stricture at the commencement, but the patient was importunate, and it was the first case the gentleman had attempted: he applied the caustic, as he told the writer, "to destroy the stricture."

The truth is this, that those cases that were cured by Mr. Hunter and Sir Everard Home by this method, were well explained by the latter. The caustic destroys the irritability and produces absorption of the stricture. It is an admirable remedy, but can only be used as an adjunct to the mechanical action of the bougie, in producing that result.

The only remaining method for the cure of stricture that receives the countenance of intelligent surgeons, is that of incision; the practice of attempting to force an

ordinary metallic bougie through a stricture, though I regret to say it has been done by men calling themselves surgeons, and moreover has a place in books on strictures, could surely never have been attempted by any one having the least fitness for that office.

Should it ever be proposed, I can only caution the patient immediately to quit such a practitioner: the least that he can expect would be a great aggravation of the stricture, and probably a permanent false passage for the urine, either from the giving way of the urethra before the stricture, or the point of the instrument being actually thrust through it. It has been also proposed to use force enough, and for a sufficient length of time at each sitting, to cause ulceration of the stricture; this in my opinion is nearly as objectionable; caustic, if it were desirable, and it is by no means to be thus used, would effect the same object besides preventing spasm, symptoms that the pressure would be sure to excite.

For reasons nearly similar to those which prevent the use of forcible penetration of the stricture, the third method or its incision by the concealed lancet, is always to be avoided when possible, yet there are cases in which it is utterly unavoidable; they are however exceedingly rare, and may never happen to those who are not extensively engaged in this kind of practice; it must therefore be apparent that they should never be undertaken by any, unless they are perfectly familiar with the varied amount of resistance offered by a great variety of strictures: in short, if there is in any department of surgery a necessity for the "tactus eruditus," or that kind of skill that can only be had by constant practice

in every variety of stricture, it is in these cases. The utmost gentleness and steadiness is necessary in all of them, but particularly in this, where we are about to take so important liberty with a structure of the greatest delicacy.

When in a case of aggravated and long continued stricture, that has been becoming progressively worse, so that the urine has passed drop by drop for a long time, and has often been completely suppressed, a complete stoppage should occur, which will not yield to the best methods always adopted for these cases, (especially when combined with inflammation or spasm,)—the warm bath, bleeding, leeching, the free use of opium, and the muriated tincture of iron,—there is no choice left, either the patient or surgeon, but the puncture of the bladder, or the stricture. The first would not of course be adopted in such a case, for the measure could only be temporary, the obstruction in the urethra remaining as before; the patient would then rationally select the only chance for a radical cure: he will remember that this is a case in which the period when dilatation by bougies or caustic could be effected at all, has gone by, and the stricture is now so firm. and the bladder so distended with urine, that immediate action is necessary.

There are various instruments in use for this purpose, all of them doubtless in careful hands perfectly effective of the end designed, yet the writer must again express a decided preference for one that he conceives adapted to the *structure of the part;* the only respect in which this instrument differs from the one already described for applying the caustic, is in the addition of a triangu-

lar piercer, one eighth of an inch in diameter at its base, so arranged by means of a button on the end of the wire to which it is attached, that projects from the other end of the catheter, that it never can be thrust more than one third of an inch into a stricture: there is a very important object in this, inasmuch as if it were longer, there would be more danger of piercing the urethra beyond, after it has penetrated the stricture; one means of preventing this, and it should never be neglected, is to cause the patient to endeavour *during the puncture*, to pass his urine, by which effort the part of the urethra towards the bladder will be equally distended, so as to make it one third of an inch in diameter: at least, a space which with due attention in holding the penis and catheter perfectly straight, the stilet will be sure to enter, after it has pierced the stricture.

As soon as this is effected, which should be done by pushing the button home to the mouth of the catheter at once, it must be returned within the catheter, and that instrument withdrawn. Then introduce a bougie not quite the diameter of the stilet and ascertain if you have penetrated through the whole of the stricture: if so, a very small catheter may be passed, and the urine drawn off; but if it is not perforated, an instrument precisely like the other, but small enough to enter the perforation already made with its predecessor, must be used: great care should be taken, to make the point of the catheter enter the puncture before the stilet is again projected; all this I conceive to be necessary to ensure our keeping in the centre of the stricture, and avoiding piercing the urethra, which we should certainly be far

more likely to do, if the stilet were to be thrust forward at once, two-thirds of an inch; we could not then calculate with sufficient precision the direction of the puncture: again resuming the bougie a size less than the last stilet, we are to explore the second puncture; and if it is perforated, draw off the water, and then dilate the stricture twice a day with bougies, and proceed exactly as in a common case; we have need to pass the bougie twice daily, for there is a great tendency for this recent puncture to heal up.

Though the patient may be able to pass water without a catheter, still it may cause him less irritation to draw it off twice daily with a small one, just before passing the bougie. If on a second attempt at puncture, it should still be found that the stricture is not entirely pierced, the surgeon should examine carefully the urethra externally, and if upon investigation it should prove likely that more than another third of an inch is involved, I conceive it to be the best practice to incise the stricture from without, and not to proceed with any further attempts at internal puncture, because if we should succeed in puncturing the stricture through its centre, there would be a great chance if the tendency to contract in so large a space, would not overcome our efforts to dilate it.

The external incision is a matter before the surgeon's eyes, and he runs no risk of error. In this event the catheter must first be passed down to the stricture, and the surgeon is there to commence the incision. It is unnecessary to give any more minute directions, as it is a perfectly plain matter; the patient is to keep his bed,

lie on his back, and pass his urine through a gum-elastic catheter which is to remain in the wound: every thing depends upon the perfect quiet and the nice apposition of the wound. I always use stitches with a fine cambric needle, and the finest dentists' silk, and then a few short strips of adhesive plaster, going half round the penis only; for if the great dorsal vein should be constricted, an œdematous state would follow, and moreover there might be a tendency to erection, and then the effect of a plaster encircling the penis, would be such as to require its immediate removal.

Should the irritation of its presence require the removal of the catheter before the fourth day, the greatest gentleness must be used, and on no account should it be done till the fifth, if it can possibly be avoided; and even then it will be necessary to draw off the water for at least ten days or a fortnight, for its pressure in passing is considerable, and its acrid nature might also seriously irritate the wound.

Dilatation by the bougie is still more necessary for a length of time in these cases than in others, because of their greater extent and firmer nature: the patient must be content to pass them occasionally for years, and then he has cause to be thankful that he has escaped with his life from ulceration of the bladder, or at least without a fistula and the loss of his virility.

In the description I have given of the instruments used for passing the caustic and incising the stricture, I have been sufficiently minute to enable those who choose, to adopt a method not only adapted to the struc-

ture of the part, but constructed, as I conceive, upon principles that ensure the application of the intended effort with the most unerring accuracy in skilful hands, and without much danger in those that are not so: and I hope, inasmuch as it is evident to all, that some of the most intellectual men are sadly deficient in manual dexterity, though actuated by the sincerest desire to benefit their patients, they will adopt the mode, should they reject the reasoning for its application.

The plan of incising a stricture through the skin, should never be chosen but in cases that present no other chance of relief; there is no difficulty in its performance, but much more doubt of its complete success than in any of the other methods. It is to be regretted, yet truth requires the observation, that bad strictures, however skillfully treated and completely relieved, are very apt to return, without the constant use of the bougie.

On the subject of strictures in females, there is in reality nothing to be said, further than the fact that they are exceedingly rare, and when they do occur require no other method of treatment than the use of the bougie. The urethra is in them so short, that the force with which the urine is expelled has no inconsiderable ability in dilating the passage: whilst its entire freedom from that complicated glandular obstruction that exists in the male, and the pressure of the greater mucous surface of the vagina, on which gonorrhea usually spends its greatest force, directly beneath it, gives it an immunity from all the graver symptoms of this disease.

CHAPTER VIII.

FISTULÆ; OR, FALSE PASSAGES IN THE URETHRA.

The reader is already aware, that if the stricture should not be penetrated in some way, the opening must be formed for the urine, either through the walls of the bladder itself, or what is fortunately more frequent, in the urethra, near the stricture; the urine, by its distension, causing ulceration of the mucous membrane, and escaping into the cellular tissue, a loose substance connecting all the different parts of the body together. Should it escape from the base of the bladder, it will soon be completely diffused in this tissue, which extends every where under the skin, and the sooner it is let out, by incisions, the better, as there is nothing that so readily produces mortification, as urine; the most formidable abscesses occurring, in consequence of its lodgment in any part of the body, but particularly in the loose tissues near the genital organs.

Should the ulceration occur in the mucous membrane of the urethra, the urine may diffuse itself between it and the skin, as far as the glans or end of the penis, and produce mortification, and perhaps destruction of the whole penis. When it occurs far back, near the anus, it usually finds its way into the scrotum, and in consequence of the extreme looseness of this part,

may distend it enormously, and produce mortification that may completely expose the testicles. All this would of course be accompanied with great fever, and prostration of the vital powers. Of the treatment of this state, we are not of course to speak here. It is only mentioned, to show the necessity of compliance with the measures necessary for its prevention.

When the urine finds it way through the externa skin, in the course of the urethra, the stricture remaining, it must become a permanent fistula. Should the patient submit to an operation for the cure of this, it is, in the first place, to be preceded by the operation of opening the stricture, and passing a flexible catheter into the bladder, which is to remain there for the urine to pass off by, the patient lying on his back, until the fistulous opening is healed. This is to have its edges cleanly excised, and to be approximated in the nicest manner, with one or two stitches, going just deep enough to leave out the mucous membrane of the urethra, and no more. The catheter, being first introduced, will prove an excellent guide for this nice manipulation.

This operation, when judiciously done upon a patient entirely tractable, will always prove successful. It sometimes happens, as we have already said, that extensive and numerous openings in the skin, or sinuses, are produced by ulcerations, proceeding generally from one principal one, that communicates with the urethra;—these often occur very near the bladder. They must be all completely laid open, to their very beginning in the urethra, and filled with lint, so that they will be com-

pelled to heal from the bottom. A catheter must then be introduced, as before. Nothing can ever heal them but this. Injections into the sinuses, are not worth a trial, for they will surely disappoint both patient and surgeon.

The operations for these sinuses, when neglected, become very formidable in extent. The most extensive I ever witnessed has been already alluded to, when speaking of affections of the prostate gland in gonorrhea.

Vaginal Fistula.—There is a fistula, communicating with the vagina, in females, caused by the lodgment of the child's head in protracted parturition; its pressure against a single point of the urethra, for several hours, causing ulceration. This subjects her to the distressing inconvenience of the involuntary passing of urine through the vagina. An operation is performed for excising the edges of the fistula, and then approximating them with stitches. It is often unsuccessful, or only partially so, from the impossibility of obtaining complete access to the parts, when operating. In a future work, we are now preparing, on female diseases, we hope to advance some useful mechanical hints on this subject. As strictures of the urethra, in females, are very uncommon, so fistulæ, from that cause, are almost unknown. We have never met with a case, in our own practice, or heard of any, in that of our friends.

There is also a similar fistula, occasionally existing between the vagina and rectum, in which the fæces pass into the vagina. Its cause is often similar to the preceding, and its cure equally difficult.

MALFORMATION OF URETHRA.—There is a peculiar malformation in the meatus, or opening of the urethra, from birth, and not in any way connected with stricture, yet as it sometimes occurs, and is the subject of great annoyance, we will describe it here.

The opening of the urethra, is greatly contracted in size, and instead of appearing in its ordinary position, it opens near the end, yet quite under the urethra, so that the stream of urine is greatly contracted, and passes directly downwards, at right angles with the penis. This must impair the virility of the person thus formed; yet not entirely.

Doctor James E. Smith, of this city, recently requested me to operate, in a case of this kind. The patient was a married man, and the father of two children. He was unconscious of any other inconvenience than great annoyance in urinating. The operation is one of great delicacy, and some uncertainty, as the same liability of the new opening to contract exists, as in cases of stricture.

The old opening must be healed up, by incising its edges by an elliptic incision, circumscribing it entirely, and made transversely with the penis. The skin, which is very flexible, must then be drawn forward completely over this elliptic incision, as far as its anterior edge, which is to be made directly under the glans, cutting away the frœnum, if necessary. It must here be attached with several stitches, and a new opening made through the lower part of the glans, in the natural situation, with a very delicate piercer, with a lancet shaped point.

I am in the habit of using a similar instrument for this purpose, and the operation for lachrymal fistula of the eye. It is literally a delicate spear, one inch in length, and the eighth of an inch in diameter, at its broadest part. This is to be passed through the glans, in the ordinary situation of the meatus, in a line with the urethra, until it enters its cavity. The end of a small bougie, of sufficient length, is then to be introduced, the rest of it having been cut off. This is to be secured by passing a piece of thread, with a needle, through its base, and tied round the end of the penis. Thus all danger of its entering the bladder is avoided. It will have to be worn a long time, and increased in size, some two or three times, before it effects its purpose. But the increase of satisfaction, in performing all the functions of the part, usually induces patients to submit to the annoyance.

CHAPTER IX.

PHIMOSIS AND CIRCUMCISION.

THERE are two conditions of the prépuce, or that moveable part that can be drawn over the glans, and retracted again, that occasions, during syphilis and gonorrhea, the greatest annoyance, and demands the interference of the surgeon. The enlightened nations of the earth, should surely adopt the ancient rite of circumcision, as admirably adapted, not only to prevent these minor evils, but, in all probability, by facilitating cleanliness, the existence of the diseases themselves, as well as other serious affections of the same parts. Hey, Boyer, and Roux, all speak of the intimate connexion of phimosis and cancer of the penis.

The author trusts he will be able to give a perfectly intelligible explanation of these affections, without the aid of illustrations. They have been purposely avoided, throughout the volume, because they are so apt to excite prurient ideas, in the young; and the work being designed for popular instruction, it is hoped will do no harm, if it does no good. Those filthy and obscene publications, that come fairly under our sleeping act, for the suppression of licentious prints, are a sufficient disgrace to those who write, and those who publish them.

The foreskin, or prepuce, as it is termed in anatomy

is, as every male knows, a prolongation of the skin covering the penis. When drawn back, it is seen to be united with a far more delicate tissue, that is continued over the glans, and actually into the opening of the penis ; it there becomes still more delicate, and forms the lining of the urethra, and so on to the bladder itself, and even the kidneys.

This is precisely analogous to the skin passing from the face, over the lips, into the mouth, stomach and lungs. The inner and outer skin, if we may so speak, merge imperceptibly into each other. And we here take occasion to say, that this furnishes a good reason to be very careful in avoiding chills, and all exposure to the night air, when the mucous membranes of any of these cavities are affected with disease. The reader will remember the effect of going from a warm room into the cold air, in stopping the urine in stricture, and the great aggravation of gonorrhea by wet feet ; and we all know the contraction of a common cold, or catarrh, by the same cause.

Whatever has a tendency to inflame and thicken the prepuce, will, in proportion to its extent, either prevent its retraction, or when retracted over the rim of the glans, suffering it, in its thickened and contracted state, to fall into the deep groove, which separates the glans from the body of the penis, prevent its return. The former is called phimosis, from φιμος, a muzzle or bridle ; the latter, paraphimosis, from παρα, about, and φιμοω, to bridle. Either of these states may also be produced by swelling of the glans itself, although, as they are continuous, the prepuce is usually affected equally with it.

Phimosis is also a deformity, with many, from birth Indeed, it is those who have naturally too long a foreskin, who are most liable to these accidents. We will now describe them in order, beginning with NATURAL PHIMOSIS, in its greatest degree.

This, also, often occurs from neglecting to retract it in very old men. A young man, aged eighteen, has just been dismissed from attendance, cured by the operation. It was so complete, in his case, that the opening in the prepuce was far less than in the penis, and he experienced so much difficulty in passing his water, that he supposed himself strictured. This proved to be the case also, but it could not be ascertained till the phimosis was removed.

The Jews draw the foreskin through an oblong opening, in a small silver plate, and cut it off obliquely, in the direction of the glans. This is protected by the plate, which intervenes between it and the knife. This operation can only be done in infancy, when the integumen is delicate, and can be easily elongated.

In my patient, the following operation was performed: A small grooved instrument, called a director, was passed between the glans and prepuce, as far as it would go, that is, with no pressure greater than would just carry it to its destination. A sharp pointed, curved knife, was passed upon the director, and piercing the prepuce, it was severed at once completely through, so as to expose the glans. The corners were then removed with scissors, and six delicate stitches, made with a cambric needle, attached the mucous membrane to the outer skin of the remaining prepuce.

We are in the habit of using a forceps with its two chaps curved, and an inch in length, at right angles with its shafts; these greatly facilitate the operations upon this part; they enable us to grasp the corners, and remove them with mathematical certainty at a single clip of the scissors, instead of the repeated and irregular incisions with the knife; indeed we have long since ceased to use the common forceps for any operation where there is much loose skin. These instruments are described by the writer in the Boston Medical and Surgical Journal, and it gives him great pleasure to state, that they have been much approved of by the profession.

This is a fair illustration of the operation for natural phimosis; it is often performed by the practical surgeon, and is only to be done when the parts are uninflamed, and at rest, if the surgeon can have the selection of time: yet it often happens that a patient presents himself with chancres concealed by the prepuce whilst in a state of inflammation, producing phimosis; or such irritation of the glans in gonorrhea, as causes by the swelling and inflammation of that part and its continuation to the prepuce, the same result: now the parts being so much inflamed, it would be highly injudicious to proceed with the same operation, as they would not unite, and a very irregular and unseemly state of the prepuce would remain.

The plan we adopt in such cases is, to make the first incision only, thus exposing the glans, which enables us to examine and treat the chancres, or the urethra, as the case may be. The edges of the wound should be

protected with lint, so as to prevent irritation either of the urethral or chancrous discharges: the latter, if any, should be immediately covered with lint: in short, the surgeon and patient must use as great care and cleanliness as possible. When the patient has recovered from the inflammation, the rest of the operation may be completed.

There are a great many means used for allaying inflammation of these parts by those who are unwilling to operate, yet I cannot but think a single and rapid incision not only entirely safe, but far the best and least tedious method of relieving the patient and surgeon from a very embarrassing situation. The application of leeches is more than questionable; the irritation and pain of their bites far exceeds the benefit; and all kinds of injections will soon convince the accurate observer of their uselessness. Not so, however, with the immersion of the penis in warm water; this is an agent, not only mild but efficient, from its relaxing effect; it is in our hands only a preparation for the incision, as this is necessary to prevent a recurrence of the evil, or what is worse, the supervention of PARAPHIMOSIS.

This, when it unfortunately occurs, is, as we said before, brought about by the complete retraction of the prepuce behind the glans, or its projecting edge, which is called from its encircling this part, the corona glandis. It is a disease that calls for immediate relief, because it will otherwise by completely strangulating the glans, which is highly vascular, prevent the return of its blood for so long a period, as to cause mortification and its entire loss. This same difficulty occurs in

children from means entirely artificial; for they mischievously tie strings around the glans, and have been known to endure the torture of complete mortification, rather than expose their mischief. The string, of course, must be severed.

The other may, if attempted early, be relieved without an operation, thus: the surgeon is to place his two thumbs side by side upon the glans, and his two next fingers of each hand on the sides of the penis, steady and continued pressure thus made for a sufficient period, will gradually force out from the glans enough of its blood, to permit the stricture to be brought forward; as soon as it slips over the corona glandis, the surgeon is to desist from pressure. He will of course use his judgment, and divide the stricture at once as a method far less painful, should he be called so late that the congestion of the glans is very great, and the pain from pressure excessive. Should there not be a reasonable chance of success it will be right to do this at once, as the pressure will only increase the pain and swelling, and hasten mortification.

Nothing is more common to the practical surgeon than these affections, and there is no doubt that the humane and enlightened rite of circumcision, if practised on all male children, would render them very infrequent, as they are generally caused by a preternatural elongation of the prepuce; this, though always done to all Jewish male children, is of course adapted in extent to the case, some requiring the removal of much more than others: the method adopted is admirably calculated to

produce uniformity in the result, and surgeons would cheerfully adopt it if suited to the adult.

But we are not only to view the ceremony of the Jewish people as preventive of these two annoyances; there is no doubt that it would prove a most effective means in preventing the spread of syphilis. If the view we have taken of that disease be correct, viz.: that it is produced by a union of foul secretions of both sexes, the reader can at once see that a shortened prepuce, by facilitating the removal of the secretion that is constantly accumulating about the glans, it must be a great preventive measure: it is very evident that the actual dislodgement of the syphilitic poison by immediate ablution, is the best means of preventing its absorption; the frequent occurrence of chancres in the folds of the prepuce and upon the glans, shows that its presence is calculated to facilitate the contraction of the poison.

It may naturally occur to some that this elongation of the prepuce cannot be a natural deformity, as its frequency renders it utterly disproportionate to other departures from the natural state; nor is it so: it is doubtless often produced by the mischievous desire of the child to be constantly meddling with this part, and finding that it yields readily and without pain, it becomes quite a pleasant diversion; every boy is familiar with the experiment of holding the prepuce together, and then distending it with urine.

The absurd and culpable fingering of nurses and vulgar mothers, is a matter that cannot have escaped the notice of the observing physician. With what object this can be done on a delicate infant heaven only knows;

whether to minister to a filthy and prurient imagination, or to effect some profound and wonderful benefit, is unknown to the writer, for he has never been able to elicit a confession of the motive; the fact however is undoubted, and it only serves to show the importance of directing popular attention to the physical treatment of infants. Nothing should escape the notice of the philosophical physician, and whatever can cause the complete physical development of a perfect human being, is so much added to the well-being of the general humanity.

CHAPTER X.

SWELLING AND OTHER ENLARGEMENTS OF THE TESTICLE.

As it is our design to connect as far as possible those diseases that are consequent upon or produced by syphilis or gonorrhea, we pass over the other congenital malformations of both sexes, leaving them for future consideration.

It was observed when speaking of the radical cure of gonorrhea, that injections were supposed, by stopping the discharge from the urethra, to produce swelling of the testicle: this does not apply to those cases in which the injection is used upon the first appearance of irritation, before the discharge is established, but after it has been running for a few days. The writer is far from wishing to deny this, on the contrary he believes it occasionally does so; with him, however, it becomes a mere calculation of profit and loss to the patient; shall the discharge be permitted to go on with the certain result of a great deal of distress, and the great probability of stricture, and as we shall soon see, that of swelled testicle too, whether the injection is used or not, or shall we endeavour to secure him from these evils, with the remote possibility of a slight swelling of the testicle, easily reduced by appropriate remedies? For ourselves,

we choose the latter, and we have no doubt the patient would also, if he knew the contingencies of suffering the discharge to continue, and the great distress often produced by giving medicines for gonorrhea by the mouth.

Moreover, injections are not the only cause of this evil; if we wish to avoid all the exciting causes, we must cease the mechanical treatment of strictures entirely, for swelled testicle is excited by any thing that produces irritation in the urethra, gonorrhea itself being by far the most active cause. The first symptom the patient observes, after the disappearance of the discharge from the urethra, is a sharp pain in one of the testicles, shooting up along the cord to the groin, and then to the back.

It often happens that the testicle swells very suddenly to the size of a hen's egg, and occasionally the cord, through which the semen passes up into the groin, becomes swollen to the size of the little finger: this is not frequent however: the testicle is exquisitely sensitive, fever accompanies, and the patient is obliged to lie down as the weight of the gland is insupportable. There is often an annoying rolling of the testicle, caused by the action of the muscular tissue of the scrotum: the swelling of one testicle sometimes subsides suddenly, and it attacks the other, both are rarely affected at once.

Although there are several other enlargements of the testicle, and of a very serious nature, it is unnecessary to mention them here; the surgeon will always recognise this to be the swelled testicle only, from the suddenness of its attack as well as its occurrence simulta

neously with, or immediately on the subsidence of gon orrhea.

There is an appendage to each testicle, called by surgeons the epydidimis, which it is unnecessary further to define, than to say, that it is a convolution of the numerous tubes, of which the structure of the testicle is composed, appended to its outside, and from which the cord proceeds; all these tubes uniting in it, and ascending singly the groin. In this substance there may remain a considerable degree of hardness, after the swelling of the testicle subsides; it need excite no apprehension, as it neither decreases or impairs the functions of the gland. This is often a source of great annoyance to the patient; he may rest assured, that it is exceedingly common in many, whose numerous families often induce them to wish that it had somewhat impaired their procreative ability.

The treatment of this affection consists of leeches, in sufficient number to produce a decisive effect—that is, from fifteen to twenty,—nauseating doses of antimony, and evaporating lotions. The judicious surgeon will not attempt, by inserting bougies into the urethra, to bring back the discharge, as was the custom in the olden time, because this irritation would not only fail to effect the end in view, but it might prove highly efficient in continuing the disease. Purgatives are also used, when judged proper, and the pain may be relieved by injections of laudanum, by the rectum, as in gonorrhea.

There is a substitute for leeches, that may be adopted, if they are not to be had, viz. passing a ligature round the scrotum, as we do around the arm, in bleed-

ing, and opening the veins in several places, with the lancet. Immersing the scrotum in warm water, will facilitate the flow of blood. This disease is quite a common attendant on mumps, particularly in children. The treatment, if any is required, is the same.

Although it has nothing to do with syphilis, still there is a swelling peculiar to that state. The precursor of the affection, whether chancre or gonorrhea, will sufficiently indicate its nature to the patient.

SARCOCELE.—So far, we have confined our attention to those diseases of the genital organs, more immediately connected with venereal complaints. We shall now speak of those they share in common with other parts of the body. Both the penis, and its appendages, are liable, from the peculiarity of their structure and functions, to some affections of a malignant and obstinate character. And we regret to say, that in consequence of their incurability by other means, they often come under the notice of the operating surgeon.

To avoid unnecessary subdivision, we will continue our remarks on diseases of the testicles. In designating the diseases, we shall use the scientific terms, explaining them immediately, so as to adapt them to popular comprehension, and enable the patient to use his own knowledge, in speaking to his surgeon, or to detect quackery, should he be so unfortunate as to fall into such hands. The intelligent attendant will not fear discovery; he has nothing but truth and science to be discovered. The sooner the quack is detected, the better for the patient and society.

The first and most common of the permanent enlargement of the testicles, is one of a fleshy and unmalignant character. It is called SARCOCELE, from two Greek words, σαρξ, flesh, and κηλη, a tumor. Authors make a distinction, in this disease, between an affection of the body of the testicle, and the appendage described when speaking of swelled testicle, called the epydidimis, alleging the latter to be much more easy of cure than the former. The truth is, that sarcocele of the testicle is very rarely cured, and the thickening of the epydidimis is, as we said before, not often troublesome. We believe them to be, in the great number of cases, totally different diseases.

Sarcocele approaches very insidiously, commencing with little or very dull pain. It is a gradual enlargement and hardening of the testicle. It preserves its form, and may last for years—its principal inconvenience being the increase of weight, which is generally alleviated by wearing a suspensary bandage. The first appearance of pain of a severe kind, passing up the cord to the groin, usually attracts the patient's renewed attention, after it has been stationary for months, and perhaps years; and it is then found that the cord itself is enlarging. There is now no time to be lost; surgical aid becomes immediately necessary. In this state of things, castration is the only remedy.

On the first appearance of the disease, the application of leeches is usually presevered in for a long time; yet I have never seen the slightest benefit from them. Mercury has been applied to them, in every formula,

and it is said, with occasional benefit. It has also been administered with cicuta, by the mouth. But the preparations of iodine merit, by far, the most attention. The success of this remedy, in my mind, confirms the idea of the frequency of the scrofulous nature of sarcocele.

Were I the subject of a disease of this kind, I would submit my case entirely to this remedy, until the slightest enlargement of the cord, satisfied me there was no alternative but the knife. In all diseases of the testicle, great care must be taken to distinguish enlargement of the veins of the cord, from permanent or structural change. See hydrocele of the cord.

There is no doubt a predisposition in families to these affections. I have removed no less than three testicles, affected with sarcocele, from brothers, in this city.

There is nothing of the syphilitic character in this disease. The swelled testicle alluded to, when treating of syphilis, is undoubtedly syphilitic, and can only be successfully treated by mercury; whilst that medicine has very little effect in this. There is nothing to prevent a person from having a sarcocele, who has had syphilis; yet a far greater number who have never had any symptom of the latter, have the former.

Although, like all glandular parts, a simple sarcocele, that often remains quiet for years, may suddenly degenerate into a malignant disease, requiring immediate extirpation, to preserve life, still, in the commencement, there is no danger of mistaking these diseases. The only affection liable to be confounded with it, is one with which, in its more advanced stage, it is often united, viz.

Hydrocele.

Each testicle is surrounded with a separate membranous sack, *attached to its posterior part*, and moistened only, on its inner surface, with a slight exudation, we may say, to prevent friction.* This is sometimes produced in excessive quantity, even to a quart in amount, and constitutes the disease called Hydrocele. It is derived from the Greek words, ὑδωρ, water, and κήλη, a tumor. We shall give the distinguishing characters of this, and the last affection, as we proceed in its description.

Persons, at every period of life, from infancy to extreme old age, and in every state of health, are subject to this disease. It usually exists on one side, though I have several times had occasion to operate on both. Its causes are not known, though it is observed to be often the seeming result of attrition; such as ride much on horseback, being more liable to it. It is entirely of a local nature, and not connected, in any way, with general dropsy. It would always present a transparent appearance, when held behind a candle, in a darkened room, were it not for the very variable thickness of the membrane, that contains the water; and this latter circumstance, also, renders it very liable to be mistaken for sarcocele.

Both these diseases begin at the lower part of the scrotum, but as the testicle enlarges in sarcocele, it pre-

* The testicle itself, is immediately covered with a duplication of the same membrane, closely attached and identified with its proper substance. They slide upon one another.

serves its oval form, whilst the hydrocele assumes the pyriform shape, with its larger extremity downwards, that being the natural formation of the sack that contains the water. If transparency exist, it is certain evidence of water; but the sarcocele itself, may be combined with hydrocele.

Sarcocele, when alone, is usually much harder than hydrocele, and when held in the hand, is heavier than it. In hydrocele, from the natural attachment of the sack, to the posterior part of the testicle, the water cannot cover it there, and when pressed upon, at the lower and back part of the scrotum, the testicle can be made to feel pain, whilst the other part of the sack, with the water intervening, renders it insensible to considerable pressure.

A hydrocele, although softer than a sarcocele, and yielding to pressure, is sometimes less so, from the thickening of the sack, especially in old cases: whilst some parts of a sarcocele may be much softer than others, thus resembling water. The upper part of the cord, in many cases of sarcocele, is much thickened, and then there is every reason to suppose it a sarcocele. This is the best symptom, by which to ascertain its nature, in combination with hydrocele. In this complication, the sarcocele is the first complaint, and can be distinguished satisfactorily, before the hydrocele appears. Hydrocele will soon obliterate the folds of the scrotum, and it will extend to the ring, or opening in the abdomen, surrounding and preventing the cord from being felt. Sarcocele leaves the cord perfectly palpable to the touch.

Rupture, or hernia as it is called by surgeons, may be complicated with these complaints, more especially a species common to children, and in the event of an operation either to cure the hydrocele or discharge the water, the deplorable result of puncturing the intestine might follow and death occur, or a false passage for the fœces. Hernia always comes from the groin and proceeds downwards; it is therefore thickest above, whilst the water in this species of hydrocele always begins from below; moreover the hernia may be reducible, or capable of being put back into the abdomen. This is a sufficient criterion in this variety. There are others, however, which exist in various parts of the cord and even penetrate the abdomen through the ring. These are termed

HYDROCELES OF THE CORD.

When surgeons speak of the cord, they allude to the duct that conveys the semen from the testicle, up the scrotum, into the ring or opening on the side of the penis, into the abdomen, and so downwards into its receptacles on the sides of the bladder, and thence into the urethra, whence it is expelled by appropriate muscles during coition. There is one of these ducts, accompanied by an artery and vein, to each testicle; they are surrounded with what we have already described as the cellular tissue that connects every part of the body, and a continuation of the same sack that contains the water of the hydrocele last described; this extends from the testicle to the ring; then enclosing all, a cylindrical muscle whose duty it is to suspend the testicle. Thus

it will be seen that the cord has three coverings; they all come out of the aperture or ring by the side of the penis, enclose the cord, and go to the testicle.

The cellular tissue investing immediately the cord, is in a natural state extremely delicate, consisting of cells scarcely visible to the naked eye, but when filled with the fluid of hydrocele they become much larger; in this hydrocele the water goes from the testicle to the ring: it cannot surround the former as in hydrocele of the testicle, because there is the adhesion we have spoken of, and this produces the distinctive term, hydrocele of the cord.

From its going into the ring it may be confounded with a species of rupture, for as we said before they all come through the ring; from this it is distinguishable by close attention, in the following way; when the patient lies down, the hernia or rupture may be returned into the abdomen; the hydrocele cannot, for it is sealed up within the cells of the cord. Should the rupture be adherent or grown fast, this mode of determining it is impossible, and all must then depend upon the tact of the surgeon. There is a disease of the veins of the cord called varicocele, in which they enlarge like a bundle of earth-worms; this disappears when the patient lies down, besides it rarely goes higher than the ring, unless combined with other disease of the cord. These two diseases may also co-exist, and then the tact only of the surgeon can discriminate them.

ENCISTED HYDROCELE OF THE CORD.

It sometimes happens that a hydrocele occurs in an

isolated portion of the cord: this is caused by a fortuitous adhesion of the investing sheaths both above and below, suffering the water to accumulate in their intervening portion. This variety occurs oftener in children, but is not as common as the others; the estimates of European authors with regard to its frequency will by no means apply to this country. Richerand considers it to occur in the proportion of one to two hundred; now as the writer has often seen it, this cannot be correct, as we do not see the other varieties by hundreds, though they are not infrequent.

It undergoes no alteration from change of posture, and is, like the others, productive of no pain in handling. The testicle is perfectly distinct below, and the cord above, between the swelling itself and the groin; yet there are occasional exceptions to this: a distinguished surgeon of this city requested me to examine an infant in whom an incisted hydrocele was so high up the cord that it went into the ring, and might upon an ordinary examination have passed for a rupture: by placing the hand on the abdomen and pressing the contents downwards, no additional tension or protrusion was caused, which must have been the case had it been a hernia; darkening the room and holding a lighted candle near it, whilst it was viewed through a thick roll of paper forming a tube, and placed directly upon the tumour, showed its transparency, the tumour appearing like a yellow grape: this is as we said before decisive of all hydroceles; it proves them to contain water.

The prudent surgeon will always remember that other affections such as hernia, may exist in a very dan-

gerous contiguity: he will therefore use all his tact in the examination, and it will reflect credit on his head and heart, and add to his peace of mind if he avails himself of other eyes and fingers than his own; in difficult cases when a surgeon has been intensely occupied with "making his diagnosis," both his touch and his perception generally become confused, from too close attention to one object, and a fresh head and touch will often discover an error, or confirm a doubt; but let him call in a head and heart he actually knows to be under proper and manly influences, or he will only add to his own annoyance, and endanger his patient. There is one other species of hydrocele; it is called

ANASARCOUS HYDROCELE,—from ανα, through, and σαρξ, flesh, because unlike the others it is not contained in a sack, nor confined to one side; but distributed directly under the skin through the whole connecting tissue, and distending the scrotum, yet showing a dividing line into two equal halves, caused by the seam that separates this part. It extends also to the penis, because the cellular tissue of these parts is continuous; the appearance of that organ is very disagreeable, the whole body and prepuce being greatly enlarged and distorted. This disease, unlike the others, is almost always dependent upon a general dropsy or anasarca of the cellular tissue of the entire body, and it therefore comes more especially under the notice of the physician; it sometimes happens that its distension is so enormous as to require puncturing; this however is within his province. The treatment is constitutional entirely. There are rare cases in which a local affection of this kind is brought about by the fric-

tion of clothes or irritation of the urine; to cure these the cause must be removed and they will subside.

These constitute the varieties of hydrocele. We have purposely omitted the treatment till the last, that we might give uninterruptedly their distinguishing characteristics: collectively they are diseases of great frequency, though the first largely predominates. Their treatment can be made very satisfactory, as they are by the resources of modern surgery, when uncomplicated with disease of the testicle or other parts of the system, capable of almost certain and permanent cure, and that too without danger.

There is a disease precisely analogous to hydrocele of the sack containing the testicle, and also to the anasarcous hydrocele of the scrotum; it is termed

HÆMATOCELE,—from αἷμα, blood, and καλη, a tumour; and consists of blood either in the sack, or in the cellular tissue of the scrotum; the latter is quite common, and often originates from blows and accidents: there is also a rupture of the spermatic or vein of the testicle, within the sheath of the cord, originating in the same causes, as well as wrestling and straining, &c. The former oftenest occurs from the puncture made in evacuating a common hydrocele, the sack of which from long continuance is covered with enlarged veins; these cannot be distinguished, and are pierced with the lancet or trochar: the surgeon will not know it, till the water is principally evacuated, when blood will issue, and occasionally after all the water is drawn off, the sack will fill in a day as large as before; this of course can be

nothing but blood, as the water would require more time to accumulate.

In cases where the vein ruptures within the sheath of the cord, and occasionally, as it does, quite near the ring, during wrestling or straining, there may be difficulty in distinguishing it from rupture, or hernia of the gut, as it occupies the very position, and occurs under circumstances oftener productive of the latter disease, than the rupture of the veins. The tact of the surgeon can alone make out this case. I do not approve of hasty incisions, in these cases, as I have found them generally do well under rest, and the external application of a wash of sugar of lead. If the distension is very great, it will be necessary to lay open the swelling with the knife, and remove the coagulated blood. The cavity should never be filled with lint, particularly if the accident has been consequent on the puncture used for injecting the hydrocele, as it is then supposed to be under the influence of inflammation, caused by the stimulating fluid, and lint would produce unnecessary irritation, and perhaps inflammation of the testicle. The lead wash is all sufficient. Hunting for arteries, in these cases, is generally lost time. There can be no real occasion for the ligature, unless the spermatic artery itself be wounded.

Treatment of Hydrocele.

Although hydrocele, of the vaginal coat, as it is called by surgeons, (the one first described,) is not a disease of any danger, still its position and extreme inconvenience, obliging the patient from its bulk and painful dragging on the cord, to wear a suspensary band-

age, together with other obvious annoyances, renders patients usually very anxious for relief.

Before speaking of the radical cure, we may notice, that the water can at all times be let out with a common lancet, though it will almost invariably re-accumulate in a few months. Again we caution the patient never to submit to even this simple operation, without well placed confidence in his surgeon; for, let him remember, it may be a hernia, and then, if punctured, he has to choose between death and an artificial anus, a loathsome state indeed. In patients who are at all delicate, perfect rest must be enjoined, till the puncture heals, otherwise inflammation and great trouble might ensue. A radical cure has been known to follow this operation, though that is very improbable.

No less than six different methods have been employed by surgeons for the cure of this hydrocele. The practical surgeons now confine themselves, almost exclusively, to two, viz. the injection of an irritating fluid, to produce sufficient inflammation to alter the action of the vessels that produce the dropsy, and incision, filling the wound with lint, the mechanical irritation of which will cause the same result, or complete adhesion and closure of the sack. Both these methods are desirable, yet as the first is much the most so, there must be some especial reason for occasionally adopting the latter. We will state our own practice, and reasons for adopting either.

In a case of hydrocele, with a sack sufficiently thin to admit of a ready examination, for ascertaining its simple state, the certainty of the absence of hernia, and

the exact position of the cord and testicle, we invariably practice the injection. In one much the reverse of this, we should choose the latter, as far the safest operation for such a case; for, if it should have a thick sack, and it reach as high as the ring, which large ones often do, we could neither pronounce positively on the healthiness of the cord and testicle, nor the absence of hernia. An injection would greatly irritate a diseased testicle, and the puncture might be fatal in hernia. Moreover, in a case of doubtful nature, as to the kind of affection, or whether any exist of the testicle, it is our duty to represent to the patient beforehand, the propriety of continuing the incision, and removing the disease, should we discover cause to do so.

In the event of using an injection, a variety of substances have been adopted. Port, or red wine, diluted to various degrees, has found advocates in great surgeons. Sir James Earle uses two thirds of wine to one of water. Sir Astley Cooper uses a drach. of sulphate of zinc to a pint of water. This we prefer, as it is definite in strength, wine often differing. Of late, the use of iodine, variously diluted, has found many advocates, and, from the high testimony in its favour, is probably a good injection. The time the injection is to be permitted to remain in the sack, may vary. I have known some persons so susceptible to pain, that I feared too much inflammation. Five minutes is the average.

It is introduced by means of a canula and trochar, a small piercing instrument, surrounded by a silver tube. This is so adjusted, that it enters with perfect ease. The surgeon, feeling for the position of the testicle,

takes the scrotum in his left hand; he applies his trochar very suddenly, at an angle with the skin about the eighth of a circle, pointing towards the body, and guarding it always with his thumb and two fingers, so that it cannot enter the cavity over an inch. This ensures the testicle from danger. He must take great care to apply it at a proper angle with the skin, for if he passes it too obliquely, it may go entirely between the skin and sack, and not enter the latter at all. Again, should it be replaced, after accidentally coming out, when the water is all drawn off, and enter this tissue, the result would be deplorable, for excessive inflammation and mortification of the scrotum would probably ensue, because the injection would enter the cellular structure, whence it could not be withdrawn.

When the trochar is withdrawn, the contents of the sack issues through the silver tube, which is suffered to remain, the surgeon keeping his hand upon it, so as to prevent its being pressed out by the scrotum, which contracts as the water issues. As soon as it is all out, or as near as may be, the solution designed to be injected, is sucked up in an India rubber bag, fitted with a nozzle that will just enter the mouth of the tube, and being compressed slowly with the right hand, it enters the sack. It need not be distended to quite its former size. Enough has entered when we are certain it has touched every part of the sack. It is to be withdrawn through the tube, on which the surgeon has kept his finger during its continuance.

The patient experiences more or less pain in the scrotum, groins, or back, and is to remain perfectly still in

bed till the inflammation goes down. It is rarely so high as to require leeching; I have usually found evaporating lotions of spirit and water sufficient, and perhaps a saline purgative; the diet must be rather low, no meat or stimuli for a few days, when the patient may cautiously resume his former habits. A cure is almost invariable on the first trial; should it be unsuccessful, it may again be tried either with a stronger solution, or one of a different kind. In a great number of cases in our own practice and that of our friends, we have never known the zinc solution thus used to fail.

The second method or the cure by incision, I am aware has received the disapprobation of some distinguished surgeons; yet the proper substitute has not been given by them. The fact of the frequent impossibility of determining the soundness of the testicle in consequence of the thickness of the sack, is sufficiently evident from the admissions of every practical surgeon; and its occasional thickness may be judged of from the circumstance of the whole sack including the testicle, having been removed in an adjoining city under the impression that it was the testicle alone, the latter being discovered perfectly sound upon laying open the tumour with the knife; this was not done by a surgeon without practice, by any means, and although it is not likely to prove a frequent result, it is better in doubtful cases to avoid its possibility.

It is conceded that the patient's life often depends upon discovering disease of the testicle, and in these cases the incision had better be made, if only for that purpose; besides, as we said before, should there be no

hydrocele, the incision is precisely what is necessary when prolonged, for the removal of the gland. The mode of doing either is known to every practical surgeon and need not be here described. If hernia is suspected great care is necessary. Should the testicle be sound, the opened sack is to be filled with lint and allowed to suppurate: it will always prove a radical cure; the method is much more severe and will never be chosen either by the surgeon or patient when avoidable.

There is very little to be said on the subject of the cure of both the other varieties or hydrocele of the cord; that which extends over the whole cord is sometimes troublesome from its bulk: an incision of its lower part has often been followed by a cure. It is the method recommended by the best surgeons and they only differ with regard to its extent. I would not advise it to be made over one third the length of the hydrocele; it is fortunate that the cord usually lies on the back part; as the contents of this will partially recede on the patient's lying down, the surgeon can then have an opportunity of handling the part, so as to determine where the cord is: he should then make a puncture only, and by drawing off the water, can determine that fact before he prolongs the incision; this we would urge always to be done, otherwise the cord might be divided, and the testicle of that side rendered useless. A director may be introduced, and the rest of the incision made upon that so as to ensure its safety. The same practice and cautious regimen apply to the encisted hydrocele. I have operated only on one case by injection, in consequence

of its size; the incision is the usual practice. In children a mere puncture will suffice, and they often disappear by using a little severe friction with the fingers, and applying a lotion of alum water.

CHAPTER XI.

MALIGNANT OR CANCEROUS DISEASES OF THE TESTICLE

We selected sarcocele as the commencement of our description of diseases of the testicle, because it is the most simple of those affections that require extirpation, and may properly be viewed as the foundation of many that subject the patient to that sad result. It would have been a natural arrangement to have proceeded at once with the others, or those which form the subject of this chapter: in suffering hydrocele to intervene, we were governed by the desire to save repetition, as it is absolutely necessary to know the symptoms of those two affections, before the surgeon can determine the nature of such as we are now about to describe, and it is vitally necessary that it should be early determined, as an operation rarely avails after the least enlargement of the cord; for we say emphatically, in order that the patient may be impressed with the only true principle to govern himself in so painful a situation, whatever your disease may prove to be after it is removed, let that be done in all cases, *where the cord becomes enlarged*, in all chronic affections of the testicle.

As a matter of course every man upon the first appearance of disease in this part wishes to persuade himself it is not incurable, and his physician, if he possess

any sympathy, is very apt to acquiesce in his patient's conclusion: let them both proceed in comforting themselves and in the use of remedies, but let them *watch the cord.* We will suppose the patient to have a sarcocele of the most simple character: he goes on with the use of remedies, and, persuading himself it is diminishing, neglects to report himself to his physician; after a while he appears, and the physician's perception of the "feel of the part" having been sharpened by his patient's absence, he fancies he can detect increased hardness of one part, and softness of another: the patient has had a few sharp pains, and the cord is very slightly enlarged: his general health is good. Now what is to be done? God forbid that I should advise rashly in a matter so trying to the feelings of any man: but there is no alternative. I have more than once been blamed for advising an operation, but I have seen the patients submit to it when it was too late, and death soon followed.

There is a great discrepancy of opinion on the subject of cancer whether it is ever local or entirely disconnected with constitutional disease, or according to the old fashioned but expressive phrase, in the blood: if I may venture an opinion, the result of close observation in a city where cancer is very common, I would make this distinction, premising that it does not apply to the varieties of cancer termed fungus, soft, &c., but to simple schirrus. A cancer is likely to return after removal, precisely in proportion to its nearness to the centre of the circulation; not that the writer knows or supposes any especial influence exerted by the heart, in

one place more than another: it is a mere matter of observation and experience; he has no recollection of a fatal case of cancer of the lip, removed at a time when the progress of the disease rendered it at all proper to do it, none of the face, and where it has attacked the extremities including the testicle, and *it has been done early*, the result has likewise been favourable.

How sadly different those of the female breast, and of the neck. If left long enough to make their nature at all probable, they have assumed a disposition to advance, which is almost invariably fatal; nothing but the earliest extirpation gives any chance of life, and even then there is the greatest doubt. There are some general observations on the subject of health that may here be given, though the appearance of a patient that will not admit of an operation can only be determined by much practical observation.

Mr. Pott, a distinguished British surgeon, remarks, "a pale, sallow complexion in those who used to look otherwise, and loss of appetite and flesh without any acute disorder; a fever of the hectic kind, and pain in the back and bowels, in those afflicted with disease of the testicle, are such circumstances as should induce a suspicion of some latent mischief in some of the viscera." He means mischief of a similar character, and then an operation would of course be unavailable.

There can be no doubt of the propriety of removing any testicle, however seriously diseased, if the general health be good, and the cord sound: yet here an allusion must be made to a disease not yet described; it is exceedingly common and may be supposed to form an

insuperable obstacle to an operation. It is, however, not so, and can always be detected by the surgeon. The disease alluded to is termed varicocele, or an enlargement of the veins of the cord: it is so common even when no complaint of the testicle exists, as to affect more or less one man in every three, and is often so bad as itself to require an operation. See that Chapter.

In all diseases of the testicle, particularly those which produce from their weight much dragging upon the cord, these veins are apt to be obstructed and much distended with blood, producing a knotty feeling, which also exists in cancer; but it is a *hard* and knotty feeling, and is not removed upon lying down: it is as apparent in the morning as at night; varicocele disappears entirely upon assuming the recumbent position, and is always *soft*. Moreover the membranes that invest the cord, are thickened and hard in cancerous diseases, and affected with sharp pains not much relieved upon lying down. All these symptoms sufficiently indicate incurable disease. There is moreover a deposit of water existing in several of the cells of the cord, and a thickened state of them combined with it: this often causes an appearance of malignant disease and produces great alarm in the patient when he learns the serious nature of the symptom. The surgeon should examine the cord carefully, and if necessary puncture it in several places; this, by evacuating the water, may simplify the case, and induce the patient to submit to an operation which would otherwise appear hopeless. The

state of the cord alone is to determine the propriety of an operation.

However dangerous the last described affection may be considered, that we are now to notice is much more so, for it is far more likely to return. It requires very early removal to offer any chance of success, sufficient to induce the patient to submit to an operation. It is called the

Fungus Hæmatodes; or soft cancer of the testicle.

This disease occasionally appears in the epydidimis, or appendage to the testicle, but oftener in its body. Unlike the last disease, it proceeds generally with slight pain, and very slowly, till it attains a very large size. I have seen them as large as an infant's head. It is always remarkably soft and elastic, as though it contained a fluid. It is often mistaken for a hydrocele, though it is quite destitute of transparency, and always much heavier. A hydrocele begins at the bottom, and extends upwards to the cord. This generally involves the whole, at a very early period. The testicle finally ulcerates, but no fungus appears, as in the next described disease. Frequently the glands of the groin acquire an immense size, and soon mortification follows. Life is then cut short rapidly.

This disease is more frequent in young people. Hard cancer, in the old, or middle aged. Almost invariably the same disease exists in the viscera of the abdomen, and an operation is rarely proper. These are the two diseases properly termed cancerous.

There is another species of fungus growth, the GRANULAR FUNGUS, proceeding from the investing membrane and also from the testicle itself. It is not malignant, occasionally healing up kindly of its own accord The causes of this disease, like the others, is involved in obscurity. It is sometimes assigned to a blow, and occasionally to the ordinary swelled testicle. Its first symptom is an enlargement, hard in character, and with slight pain. Both increase, till an ulceration is formed, and then, instead of matter, a white fungus, like grains of rice, appears. Upon the occurrence of this, the pain usually subsides, because the tension and pressure of the investing coat of the testicle, is removed by the ulceration.

Mr. Lawrence remarks, that he can see no reason whatever for removing the testicle, in this affection, as the growth will invariably subside of its own accord ;— yet adds, that it is so slow, that it would probably require a very long time. The truth is, it is so slow that the patient will not always submit to the inconvenience. I was requested by Dr. Sibree, of this city, to remove one from a French gentleman, who preferred and urged that measure. It is somewhat remarkable that, in this unfortunate man, the other was, shortly after, affected with a similar disease, and was also removed, in a neighbouring city.

Should the growth proceed from the membrane, a cautious dissection will make it apparent, and the gland can be saved. If the patient prefer, it will be proper to remove the fungus growth, and see if it will heal. If it will not, castration must be performed.

In concluding this chapter, it is proper to mention that the operation of tying the spermatic artery, that principally supplies the testicle with blood, has been found adequate to check non-malignant disease. Upon several occasions I have given the patients that choice. Of course, it is done with the express object of cutting off the supply of blood, and the testicle will, if it is effectual, wither and perhaps entirely disappear.

CHAPTER XII.

VARICOCELE; OR, ENLARGEMENT OF THE VEINS OF THE CORD.

EACH testicle is furnished with its own artery, to sup ply it with blood, and a vein to return it into the circulation. When it has performed its duty of secreting the semen in the testicle, it is conveyed to its appropriate receptacles, at the base of the bladder. It mounts from the testicles by two tubes, about the bore of an ordinary pin, and composed of a substance of almost cartilaginous hardness, which may be felt in the upper part of the scrotum. Each of these tubes originate from an immense number of smaller ones, that form the substance of the testicles, and each one, with its artery and vein, and its investing membranes, forms a cord on its own side of the scrotum, ascending as high as the penis, on either side of which they enter a small opening in the muscles and membranes, under the skin of the groin, and dip down to their reservoirs, at the neck of the bladder.

Varicocele, is derived from varix, a vein, and κήλη, a tumor. It is an enlargement of the spermatic vein, and feels exactly like a bundle of earth worms under the SKIN. The causes of this disease are closely connected with its structure, and when we come to examine it, the

wonder is, that instead of one in three, the proportion of those affected does not exceed that number—indeed, that any one should escape.

Both the duct for the semen and the artery, are composed of strong and fibrous structures, but the veins that would seem to require stronger construction, in consequence of the column of blood they have to raise, at least ten inches from the testicle, are formed of a very delicate and distensible substance, and on the left (the side oftenest affected) are inserted into a large vein, within the body, at right angles, thus rendering the return of the blood peculiarly difficult.

Why this is so, it is quite useless to inquire; the fact is evident. The disease is, however, always more troublesome to such as make the severest exactions, in the way of venery, upon their systems. Either that, or any other mode of exhaustion, if long continued, will produce it, as in those who are much on their feet, or pursue very laborious employments.

Enlargements of the testicle will, as we said before, often cause varicocele, and, in such cases, induce the belief, without a careful examination, that the cord is affected with the same disease.

Varicocele may attain the size of a hen's egg, and cause the greatest distress, producing much elongation of the scrotum, and pain in the loins and back, with constant weariness and mental depression. The testicle occasionally wastes, and I have known it entirely disappear.

When varicocele is very large, it greatly resembles rupture. Like it, it will dilate when the patient coughs,

swell in the erect, and retire in the recumbent position. Moreover, it is often combined with hernia. This would be unfortunate, in detecting the real nature of the disease, when an operation is intended, if there were not a certain method of proceeding, that assures the surgeon of its real nature.

In order to convey intelligibly this method, we must first remark, that it requires a great deal more pressure to compress an artery, than a vein, so as to prevent the passage of the blood. Now both the artery that supplies the testicle, and the vein that returns the blood, pursue the same track, through the ring, over a solid bone, to be felt on each side of the penis. A hernia, or rupture, also goes through the same ring. When the patient lies down, the contents of the vein disappear, being assisted to flow back into the larger veins, by the removal of the gravitation of the blood. The surgeon placing his thumb over the ring of the affected side, and making pressure enough to keep the blood from passing through the vein, desires the patient to arise. The pressure not being sufficient to compress the artery, the blood readily finds its way into the testicle, but cannot return into the abdomen at all, on account of the pressure on the vein, so that the varicocele is quite apparent. If a hernia occupied the scrotum, it cannot descend, so long as the pressure is continued, and so its existence is also determined.

The causes we have assigned for the disease, would seem to indicate the means most suited for its relief; yet it is rarely the case, that peoples' occupations or inclinations are easily changed. Moreover, when the veins

have quite lost their contractility, it is very doubtful if any ordinary measures of precaution would avail. Patients find most relief from wearing a suspensary bandage or bag truss, which are now very well made by the bandage and truss makers, in this city. The use of cold bathing to the part, twice or thrice a day, is productive of much relief. An open state of the bowels, in this complaint, as well as piles, is very important; but purgatives are highly injurious, as they break down the powers of the body, and increase the disease. A little rhubarb may be occasionally chewed, and it is all sufficient.

I have repeatedly seen trusses applied for this disease. Such ignorance is utterly unpardonable, as the measure is exactly adapted to produce it. It is the same thing as though the thumb of the surgeon, as above stated, were continued there. Patients who require trusses for rupture, should take care, in their zeal to get a good one, that they do not make pressure too near the penis, for that is the place in which, if pressure be made and continued, varicocele will follow.

There are several methods by which the cure of varicocele may be effected by surgical means, but as they are not all equally eligible, we shall give an account of each and our own experience.

The first and most elegant method consists in tying the spermatic artery, so that when the supply of blood is cut off, the veins can no longer be distended, but will gradually wither and disappear: it was supposed when this was first proposed, that the testicle, if its peculiar

artery was cut off, would also suffer and be absorbed, but practice shows a different result:* it is a very safe method, and so far as the perfect development of the gland would prove the possession of its functions, those persons upon whom I have performed the operation are not only perfectly cured, but in as perfect a state of virility as before.

The next method has often been done with success, though it is a more painful operation than the other. A piece of the enlarged vein is cut out at once, and thus its continuity being interrupted it shrinks away, with diminution of the gland: why it should be so and the other not, it is impossible to say. It cannot furnish a rational objection to the operation, should there be sufficient reasons for preferring it to the other, as the disease itself when so troublesome as to require an operation, is certain to impair the integrity of the gland to quite as great a degree.

The third plan is decidedly more painful than either, yet is often chosen because it is not a cutting operation. The surgeon secures the cord, with its artery, which accompanies it, closely between the thumb and fore-finger of his left hand; then, with a curved needle, he carries a ligature under the mass of veins, puncturing the skin on one side the scrotum, and bringing it out just beyond them; he then returns the point of the needle, still threaded, through the same hole where it emerged, in

* It is strange, that this should follow in tying the artery for sarcocele, and not in varicocele; probably the vitality is lower in actual disease of the gland.

front of the veins, yet under the skin, bringing it out of the same hole where it entered. It is now evident that the veins are all enclosed in the loop of the thread, under the skin. Upon tying the two ends very tightly, the same result follows as in the last operation.

Sir Astley Cooper suggested the removal of a large portion of the scrotum, supposing that the increased constriction of the veins, by the reduced integument, would support them. It is exceedingly severe, and in the few instances it has been done, utterly unsuccessful.

I have adopted, for the cure of varicocele, a plan that has been successful in several instances, and have applied the same treatment, to cause the retention of a rupture, after its reduction, and with similar success. It was proposed originally for the latter complaint. There is little doubt of the extensive utility of this method of treatment. It is perfectly safe, and by no means painful, and will probably come into extensive use. With a common lancet, the skin only is punctured. This is done by pinching it up between the finger and thumb, so as to ensure the safety of the vein. Holding it thus, I draw into a small blow pipe, from a drachm phial, five or six drops of oil of cloves, and inserting its point into the puncture, pass it under the skin, and blow out the oil into the cellular tissue, over the most prominent part of the veins. In a few days, slight inflammation occurs, and the veins become consolidated, by pressure on their outsides, caused by the inflammation, to a greater or less degree, thus interrupting their circulation. It

may be necessary to repeat this once or twice. It produces the same result as the others, though not with such immediate certainty. It is not so severe as any of the other methods.

CHAPTER XIII.

CANCER OF THE PENIS.

THERE seems to be a remarkable connexion subsisting between phimosis and cancer of the penis. The skilful Mr. Hey, of London, Boyer, and Roux, of Paris, all speak of it. Almost every case published by Mr. Hey, was thus complicated; and Roux urges the performance of the operation for phimosis, in order to prevent cancer. There is no doubt of the correctness of these observations. I have myself witnessed the same complication.

A small wart or tubercle, on the prepuce or glans, is the first evidence of its approach. This will often remain quiet for years, and then, without any apparent cause, suddenly enlarge, and soon attain an enormous size. The extreme vascularity of the penis, easily accounts for the rapid growth of any species of fungus, that may attack it.

Warts, as we have said heretofore, grow with great rapidity, and excite alarm, from their formidable appearance. The patient often imagines them cancerous. They are easily distinguished from this affection, by the suddenness of their appearance, and the narrow necks hat attach them to the parts where they grow. The cancerous tubercle has a broad base, the diseased part

merging into the healthy, and evidently proceeds from the deeper structure of the penis. It is occasionally painful, and the colour is more variable than venereal warts.

Ulcers produced by deformities and constrictions of the prepuce, and ulcers of the glans and prepuce from other causes, such as venereal affections, scrofula, mechanical and chemical injuries, &c., must not be confounded with this affection. All these, however, are sufficiently marked, in the causes of their access, as well as their characteristic appearances, to prevent error, unless in the hands of an empyric. There is but one remedy, and that is amputation. It must be early adopted, in order to ensure success, and save as much of the member as possible.

Cancer of the scrotum.

The scrotum, or bag, that contains the testicles, is liable to various kinds of tumors, and especially to cancer; though this is very uncommon in this country, being confined, in a great degree, to chimney sweepers, and that too in London; for, strange though it may seem, it is almost confined to them. Whether produced by the soot, or any other peculiar cause of irritation, it would be difficult to determine the actual reason for its appearance in them. It does not seem to affect the coloured chimney sweepers of this city. Nevertheless, we meet with it in those of different pursuits here, for I have had occasion to excise a portion of the scrotum, in an actual state of schirrus. It was to all appearance similar

to cancer of the lip, having the same granulated structure, like a wart on the hand.

The appearance of these tumors is sufficiently characteristic. They have the usual hardness, knotty irregularity, and occasional pain, as in other cancers, and unless early removed, will affect the testicle and cord, and the inguinal glands, and then their removal would be unavailing.

Sarcomatous Enlargement of the scrotum.

This appendage, is also liable to a species of enlargement, similar in its nature to the sarcocele of the testicle. At least it is so in its commencement, for it is unaccompanied with pain, or any appearance of malignity. It is simply an enlargement. It attains, in warm climates, the most enormous magnitude. Baron Larrey describes them as attaining, in Egypt, the weight of "one hundred and twenty pounds," and has seen several of this size. In cold climates they never attain this magnitude. The growth is not supplied with many blood-vessels, and is therefore attended with little danger to remove, in ordinary cases, or such as may be supposed to come under the surgeon's notice, should they occur in this latitude. Sometimes these enlargements are studded with immense numbers of small chalky concretions, such as occur in gout.

Both of the last described diseases, also affect the external parts of the female. I have had occasion, also, to remove from those parts, several groups of enlarged veins, or varices, as they are called by surgeons. Encisted Tumors also form in both sexes, and require re-

moval, should their size be troublesome. These occasionally form within the vagina, and completely hinder the performance of the natural functions of the part. I have had to remove them, upon one occasion, when their existence was discovered, at a time calculated to produce the keenest mortification, viz. shortly after marriage.

Imperforate Vagina.

This affection is analogous to the congenital malformation of the urethra, in the male. Although it generally exists at birth, carelessness, and want of attention to cleanliness, in mothers and nurses, may cause the sides of the mucous membrane of the vagina, subsequently to adhere at its opening. When it exists from birth, it may usually be found directly at the entrance of the vagina, the mucous membrane forming a smooth surface, and covering the opening entirely up to the urethra, leaving that aperture perfect, or it may exist about half an inch deeper.

The deeper closure is formed by the too close approximation of that part of the mucous membrane constituting the hymen. This usually exists in females though not always. I have seen this latter conformation neglected till the menstrual period, when all the phenomena of that stage of female life appearing, together with increased pain and enlargement from the accumulating fluid, great apprehensions were excited in the parents; and upon more than one occasion the palpable enlargement of the abdomen, has caused unjust suspicions of the chastity of the patient. All the symp-

toms of pregnancy will occasionally accompany this state, and it has continued till the death of the patient followed, from constitutional fever, caused by the retention of so great a mass of accumulated and decomposed fluid.

I have several times been requested by professional friends to visit patients thus circumstanced, and all the symptoms have subsided upon incising the membrane. On one occasion, more than a quart, by actual measurement, was liberated from a young woman under the care of the late Dr. Churchill, of this city: in this case it had been accumulating for three years, the patient being eighteen: its absorption through the system, had produced the greatest constitutional irritation; indeed actual hectic existed at the time of the operation. The membrane was uncommonly rigid, and more than an inch in extent: it had existed from birth, and the operation was successful in restoring complete health: although four years afterwards, on occasion of her first confinement, I was obliged to enlarge the vagina by incision during labour. There have been two subsequent accouchements, and no necessity for renewed interference.

The first mentioned obstruction, or that at the entrance of the vagina, is the most common. Dr. Newell of New-Brunswick lately requested me to operate on a very lovely infant in this city; the greatest imaginable distress existed in the parents, who fancied their child was of neither sex: this closure, with a slight enlargement of the clitoris (a small appendage similar to the penis, existing in a greater or less degree in all females)

having produced the conviction that its title to either sex was doubtful. Dr. Newell requested me to relieve their anxiety by an operation, having previously stated to them that their child was a female, and explained the nature of the deformity. The membrane was incised, and a small piece of lint introduced: there was no further apprehension in the parents upon an explanation of the operation, and its certain success. These are the cases absurdly called hermaphrodites: the intelligent reader need hardly be told that the actual structure of both sexes, is never united in one individual.

The Urethra,—or passage for the urine is occasionally liable to slight obstructions, in new born infants. They may be broken through with a probe, and are probably little more than mucous agglutination of the parts, though their persistence, and the impossibility of passing urine during their continuance, demands interference.

Polypi—are tumours, either of a fibrous or cellular character, proceeding by a narrow pedicle from the upper part, or neck of the womb, and occasionally from the vagina itself. They sometimes attain a very large size, and are attended with most of the symptoms of leucorrhea, and irregular and exhausting discharges of blood. Although this disease is not common, the author has, through the kindness of friends, been called to operate in several cases. Two specimens removed by ligature, with an instrument invented by the author and described at the close of the volume, from patients of Drs. Cyrus Weeks of this city, and J. P. Stryker of Newtown, L. I., are in the cabinet of my distinguished and excellent preceptor, Dr. Valentine Mott.

CHAPTER XIV.

PROLAPSUS OF THE VAGINA AND WOMB, AND LEUCORRHEA.

Although it is not our intention to introduce organic diseases of the womb, we cannot omit with equal propriety the notice of occasional relaxation of the vagina, and its consequence, prolapsus of the womb. By reason of their great extent and importance, affections of the womb itself must constitute a separate treatise, though they undoubtedly come under the general division of diseases of the sexual organs, and would seem to merit equal notice with those of the testicle in this treatise. Moreover, many of those who require instruction on the subject of diseases of the womb, would be unwilling to possess a book treating on affections of both sexes. We allude to prolapsus of the vagina, to complete the sketch of derangements of the sexual passages necessary for popular instruction, and the avoidance of quackery. A more extended notice of it will be taken in a treatise we are now preparing on diseases of the womb and its appendages.

From its peculiar and distensible structure, being designed by nature as a viaduct for the inception and expulsion of the infant, the vagina is susceptible to two contiguous causes, calculated to encroach upon its cav-

ity, and slight power of resisting pressure against its sides. On its superior and anterior part, the distended bladder, and immediately above, the womb, with the weight of the intestines and pressure of the abdominal muscles, is cause enough to account for frequent displacements from above; whilst behind and below, the frequent distension of the rectum or straight gut, with the hardened contents of the bowels and the violent straining of stool, is equally efficient in producing the same result.

It was from observing the great prevalence of this affection, with its frequent consequence, the falling of the womb, and the miserable physical infirmity of so many of our countrywomen, that the writer devised, some thirteen years since, the original contrivance for the support of the womb, and abdominal parieties in females. This instrument has been the means of incalculable benefit to the human family, and under the appropriate name of utero-abdominal supporter given it by one of its imitators, it may now be purchased of various modifications and degrees of excellence and price, in most of the cities and towns in our country. It was described and illustrated by a plate, in the United States Medical and Surgical Journal then published by Dr., now Professor Webster of Geneva college, in this state. The writer would not have deemed it necessary to substantiate his claim to this important invention, had he not observed a contemptible disposition in some members of the profession to plume themselves with borrowed feathers: how far the claim is substantiated, depends fortunately upon a publication with a specific date ap-

pended thereto. So far as mechanical support will go, this instrument will effect all that is desirable; the intelligent patient, however, always desires radical relief if possible; this can only be attained by raising the standard of health.

The remedies for prolapsus of the vagina, must from the variety and complexity of its causes, be various: whatever has a tendency to prostrate the powers of the body, will by weakening this part in common with the rest, allow the encroachment of the bladder and rectum. This is rendered very manifest in another complaint, usually accompanied with great weakness, which causes more extensive prolapsus of the posterior part of the vagina than any of the others, viz., dropsy of the abdomen: there is a sack communicating with the general cavity of the abdomen, and extending low down behind the vagina, which becomes distended with water, and often thrusts the posterior wall of the vagina quite through its opening, so as to be visible externally to the eye. This is not a common cause, however, of that state.

Distension of the bladder will sometimes, from the weakness of the anterior wall, permit the complete retroversion of that organ, and its partial appearance without the external parts, protruding before it the anterior wall of the vagina: there is, of course, total suppression of urine from the complete reduplication of the urethra. I have seen this accompanied with periodic expulsive pains precisely similar to those of labour, the bladder being protruded at intervals like the head of the child; this was but a consequence of the weakening of the

vagina from leucorrhea. Such a case was described by the writer in one of the early numbers of the United States Medical and Surgical Journal.

Child birth, excessive menstruation, leucorrhea, and costiveness, are its most general causes; on the two former we shall say nothing, as they do not come within our purpose. Costiveness may be relieved by chewing the root of rhubarb; all other medicines are objectionable from their too violent and irritating action. The monstrous evil of quack pills, so enormously used in this country, has produced cases innumerable of falling of the womb, piles, prolapsus of the vagina, and other diseases. Fruit and vegetables are still better as an aperient than rhubarb; no enlightened person will ever use medicine if it can possibly be avoided. Diet is the natural remedy, medicine is that of art. A quart or two of warm water may be introduced into the rectum by means of the improved apparatus for sale at the drug shops: it is a good substitute for rhubarb, and may alternate with it, as the medicine often loses its power if too long continued. The next cause of prolapsus of the vagina, is productive, through the relaxation of that passage, of that scourge of married life, prolapsus uteri, by far the most serious complaint of the sex.

Leucorrhea or whites, is analagous to spermatorrhea of the male. See that chapter. It is derived from λευκος, white, and ρεω, to flow. It is a white discharge proceeding from the vagina, and sometimes from the womb itself. Its causes are fully detailed in the two following chapters, and we only mention it here, because it is a frequent precursor of prolapsus of the vagina and

womb. I would not wish to assert in this book anything that would do injustice to the afflicted, but I am obliged to say that although it may be produced by excessive exhaustion of the powers of life by laborious employment, unwholesome air and food, profuse menstruation, the use of tea and coffee, and frequent childbirth, it is far oftener caused by direct irritation, applied to the mucous membrane of the vagina itself. See chapter on venereal excess and onanism. There is one observation I have often heard made by a close thinking medical friend, to which I fully subscribe, viz., that this discharge sometimes actually takes the place of the menstrual secretion, when that is interrupted by wet feet, or other causes.

Many of the symptoms of leucorrhea are occasionally identical with gonorrhea, as we have already said when treating on that subject; the reader will remember that we advanced the opinion, that gonorrhea in the male occasionally originated in this disease, even in virtuous and married life.

The symptoms of gonorrhea however, differ considerably in the great majority of females from leucorrhea, and it is only in very severe cases, where the discharge becomes yellow and acrimonious, and reaches the urethra, so as to produce the distinctive symptoms of gonorrhea, viz., scalding in urinating and inflammation of the external parts, that any doubt can exist as to its real nature. Should these symptoms with *constant* discharge and enlargement of the glands of the groin be observed, it is probably gonorrhea. Should the discharge be irregular, sometimes ceasing entirely, and

accompanied with no marks of external inflammation, and no scalding in urinating, and there exists neither irritation, pain, or enlargements in the glands of the groin, it is leucorrhea. This distinction must depend upon the tact of the practitioner, the character of the patient, and the symptoms.

In long continued or violent cases, the discharge assumes every variety of colour and consistence, from white to yellow, greenish, and even brown, and varies in tenacity, from the thinnest albumen of an egg, to gelatinous masses, like the thickest starch. After the cessation of the menses, at the forty-fifth or seventh year, it is often the precursor of malignant or cancerous disease of the uterus. Indeed, it extends, in severe cases, to the internal surface of the womb, which, as in the urethra and glans of the male, is similar in structure, and continuous with the mucous membrane of the vagina. These cases can only be discovered and treated by the aid of the speculum, an instrument hereafter to be described, that exposes to view the entire cavity of the vagina, and allows injections to be introduced into the womb itself.

Leucorrhea, from its causes, is peculiar to adult life, although children are often affected with transient inflammation of the vagina, from atmospheric and other agency. It must be remembered however, that females of a very tender age, even as early as twelve years, are, from an unfortunate selection of associates, subjected to sad examples of vice. The physician must be wary and incredulous, should he find a persistent case of vaginal discharge in a child. Even in this Christian

city, our court calenders furnish occasional evidence of actual gonorrhea, communicated by adult criminals to children. In the chapter on onanism, we shall allude to the vicious practices and examples of servants and schoolmates.

In addition to the characteristic symptoms of the discharge, the patient is afflicted with very distressing and constant constitutional symptoms, viz. pain in the back and loins, great debility, disinclination to movement, fatigue in ascending stairs, lifting, &c., failure of appetite, mental depression, chilliness, paleness, and often yellowness of skin, and dark circles surrounding the eyes. In confirmed cases, there are frequent faintings, palpitation of the heart, and difficulty of breathing, swelling of the extremities, with fever, and general prostration of mind and body.

In this stage, affections of the womb and dropsy often supervene, and unless decisive measures are instituted, the patient must succumb. The judicious physician will endeavour, in attempting a cure, to restore a natural regimen, and to remove as far as possible, all the causes tending to prostrate the powers of life. These we shall not again allude to, as they may be gathered from this and the ensuing chapters.

The only tonic we shall recommend, is the use of the syrup of the iodide of iron. Nothing can exceed its happy effect as a tonic, and its use is eagerly continued by the patient. Its best results are produced in doses from ten, increasing to thirty drops, twice a day. Sea air, and, if possible, pleasing society, the shower bath, free and constant friction of the skin of the whole body,

and nutritious and unexciting diet, and the avoidance of all stimuli, are indispensable aids to the patient. The local use of the cold douche, or a jet of water, playing from a bent tube, with some force, against the external part, immediately below the vagina, is an admirable measure. No purgatives must be taken. Rhubarb is to be used, if necessary, for the bowels. The needle must be avoided as a pestilence. Its use greatly hinders respiration, prevents the performance of the healthful play of the heart and lungs, and thus greatly impairs the powers of digestion. No tea or coffee should be used; they are pernicious beyond all other things. No drink but water, and of that very little. The physician will use his judgment in prescribing ale or porter. As soon as they can be borne, their effect is good.

In regard to local means, I can only say, that in totally abjuring injections of every kind, I am governed by long experience of their utter uselessness, as they are recommended in the books, and prescribed for self-administration. Though I have spoken of the strong analogy between affections of the male urethra and the vagina, and it will appear that the means relied on for cure, are identical with those used for some affections of that passage, still the great difference of capacity and construction, renders them quite inert, when used of ordinary strength, and with the female syringe in common use.

Although we believe nitrate of silver the best agent in use for *altering the action* of the diseased surface that produces the secretion, it is needless to say to the physician, that there is no specific efficacy by which it cures.

We only use it because it is a convenient solid stimulant, that dissolves instantly to a limited and manageable extent, when it *touches* the part actually diseased. Now here lies the difficulty in the use of injections. If the syringe in use had sufficient capacity and power to distend the whole vagina, it would indeed touch every part. But even then, the solution of a scruple to an ounce, or even a drachm, would not be half strong enough to produce an alterative action. Nothing but the pure stick, applied to the entire surface of the diseased mucous membrane, has, in our hands, produced any permanent effect.

Whoever examines the female syringe, and compares it to the *structure of the part*, and the utter inability of the female to apply it properly, even if it were a proper instrument, must certainly be convinced of the folly of its use. The vagina (in such cases as require treatment, a capacious passage) is not only half filled and coated with mucus, which instantly alters the chemical constitution of most if not all the salts in use as alteratives, but its sides lie in close contact, being only separated, to a limited extent, during the passage of the instrument, in the end of which only there are five small holes! It is very evident that the injection can only touch a small surface of the upper part of the vagina, and immediately subside, in a perfectly inert state, to its lower part. The local irritation, attendant upon its frequent introduction, I need not say, is highly injurious; and when used for leucorrhea caused by onanism, the astute reader will see, its constant possession by the patient, may be attended with other evils, decid-

edly subversive of curative intentions. I have known this to be the case, for my patient has confessed it to me.

Of injections within the womb, I have only to say, that where they seem to be required, by an evident continuance of the affection, through its opening, the restoration of the vagina to a healthy state, will be followed by cessation of the uterine discharge. This has uniformly been the result, in every case, where I was able to carry out to a cure, the treatment of the vaginal affection.

In applying the caustic, I have, for the past three years, availed myself exclusively of the speculum, invented by me, and described, with a cut, in Vol. xxx. No. 1, of the Boston Medical and Surgical Journal. It will fully answer all expectations, when properly made. It is applied without the slightest pain, exposing the entire vagina, at once, to the view, and permitting the action of remedies on every hair's breadth of the lining membrane; advantages that do not appertain to any other in use. It has been much approved of by the profession, though I regret to say, that the want of attention of our instrument makers, has quite prevented their success. Those in use were made by an ordinary white-smith, after one manufactured by the writer. A cut and description is given at the close of the volume.

A single thorough application of the solid caustic, touching lightly every part, until it is whitened by the action, will answer for six weeks, and if during that period the health can be sufficiently improved, to re-

store the action of the skin, and diffuse the circulation, it need not be re-applied.

In relation to the unwillingness of patients to submit to the application of the speculum, I can only say, that it is for us to cure them, not to remedy an erroneous education. An intelligent female, if the physician she calls be a well bred gentleman, will never object to any measure he may propose for her benefit, providing she can be satisfied of its necessity, and this I believe will always depend upon his knowledge of the subject and the sex, with the possession of that delicacy of deportment, only the result of a proper education.

CHAPTER XV.

SPERMATORRHEA—ITS ORIGINAL CAUSES.

This word is derived from σπερμα, semen, and ρεω, to flow. It therefore signifies a flow of semen, or rather a very frequent dribbling. In gleet, the reader will remember, that an appearance of mucus at the orifice of the penis, is its peculiar symptom, and we must also add, that in enlargement of the prostate, there is a similar appearance.

The most distinctive characteristic of the seminal discharge, is its smell, and that will, in all cases, determine its nature. Nocturnal emissions, becoming more and more frequent, usually precede spermatorrhea; the latter constituting its more advanced and unmanageable state.

When speaking of the anatomy of the lower part of the urethra, and the ducts of the prostate gland, we remarked, that on each side of this gland, and lying directly on the bladder, there were two small sacks, into which the semen was conveyed by the ducts leading from the testicle, through the opening in the groin, and dipping down each duct, to its own sack. From the fore part of each of these receptacles, which are about three fingers' breadth in length, and approximate at their anterior ends, a single shorter duct, a fingers'

breadth in length, passes obliquely, and opens in the urethra, side by side, just anterior to the prostate gland. This is the point where the semen enters the urethra, and it is the relaxation of these ducts, and the irritation of the sacks from distension, that causes the flow of semen and the nocturnal emissions; the latter being often accompanied with lascivious dreams.

To complete the anatomical description, immediately in front of these ducts, there is an expansion of the urethra, called the bulb, in which the semen accumulates, previous to emission, in the act of coition. This is surrounded with a muscle, which instantly acts, when the venereal excitement reaches its acme, and the semen is thereby ejected spasmodically from the urethra.

We have said, that it is from relaxation of the seminal ducts that the flow of semen is produced; and the reader must distinctly understand, that this relaxation implies a *loss* of contractility, upon the presence of which all ducts and muscular parts depend for their healthy action, or that force which causes them to contract their openings, and keep in their contents. It is from previous *excess* of irritability and action, that they get into this unfortunate state. Now that action occurs, in the commencement of spermatorrhea, either from EXCESSIVE VENERY, or from self-indulgence, or ONANISM. It is, therefore, to such excesses, we are to direct our attention, in investigating the causes of this disease.

VENEREAL EXCESS.

It is not my purpose to deprecate the resentment of those worthy men, who, with upturned eyes and up

lifted hands, deplore the "pernicious influence" of such disclosures upon the "young and rising generation," whilst they fix their eyes on some far distant realization of spiritual renovation, whose absence they are destined so constantly to bewail. We would fain not be misunderstood by those who begin to see the want of some active benevolence, founded upon a philosophical view of man's real mental and physical nature, disconnected from the mass of accumulated error, which has been thrown by false moralists, like a funeral pall, over the intellect, and smothered all his nobler aspirations.

It is with the living, moving, *present* humanity, *we* have to do;—with a being, who contains within himself the germ of the highest mental and corporeal excellence. Alas! that the web of error, that has so assiduously been wound around him, aye, even from his earliest existence in his mother's womb, should so long have opposed the intent of nature. Thus it was, that her own great poet exclaims, in the mouth of Edmund, in Lear, when he contemplates the miserable inferiority of offspring, so common in those who have broken down the energies of the body, by what is called "legal excess," a term to "reason most absurd," and contrasts it with his own physical perfection,—

"Why brand they us
With base? with baseness? bastardy? base, base?
Who in the lusty stealth of nature, take
More composition and fierce quality,
Than doth, within a dull, stale, tired bed,
Go to the creating a whole tribe of fops,
Got 'tween a sleep and wake?"

Let us not be misunderstood. We would ever revere and uphold that sacred institution, whose tendency is, in loving one, to expand the sympathies of our nature, till they embrace all that belongs to humanity; but we deplore the universal ignorance of that great truth. that is pointed out by analogy, and every light from the ample page of nature, that the intercourse of the sexes, *could only have been designed for the production of offspring.*

Yes, if man were not begotten in "the dull, stale, tired bed," and his education conducted in the laws of nature and truth, he would never present himself before us in the pitiful condition of the onanist or the libertine—his nervous system would never be so early and irregularly developed, as to make the whole of his subsequent life a curse to himself, and full often to present him to our view, a drivelling idiot by the road side, the wretched occupant of a mad house, or the premature victim of consumption. Is this overdrawn? go to the next lunatic asylum, and ask its medical attendant;—ask teachers of all our schools, male and female, superintendents of our houses of refuge, prisons, and colleges, the actual extent of the vice of onanism;—and if libertinism be the object of your inquiry, live in a city, and be answered.

But why should this be so? Shall man be thus debased for ever? Say rather, why should it *not* be so? Is he not totally ignorant of the consequences of error? does his own nature form any part of his early education? is he taught to look to the structure of his body, for a knowledge of its laws, and does her faithful ex

positor—the true teacher—expound them in the schools? or is his early youth spent in the repulsive and dry details of the doings of defunct heroes, and mystical hypotheses, alike stultifying to the teacher and the scholar? Judge ye, who visit "our public hives of puerile resort," and say if the chaste and elegant Cowper was not just, when he said, in his review of schools,—

> "Would you your son should be a sot or dunce,
> Lascivious, headstrong, or all these at once,
> Train him in public, with a mob of boys."

On a previous occasion, when reviewing the causes of those distressing female complaints, leucorrhea and prolapsus of the womb, with the general physical imperfection of our females, we used the following language, and we are pained to say, we can here add with truthfulness, *all* the additional causes that we are considering in the present chapter.

A prominent place in the list of predisposing causes, is due to the defective physical and mental education of females in our country, but more especially in New-York. The mania that exists for precocious education and marriage, causes the years that nature designed for corporeal development, and corresponding intellectual vigour, to be wasted in the restraints of dress, the school and the ball room. With a body not half clothed, and a mind eagerly intent on pleasure, the hours designed for sleep, are perverted by the midnight revel. Unequal effort is required from the delicate votary, to retain her situation in school, and thus the evil is perpetuated. When one is finished, another in perspective keeps the

mind morbidly sensitive to impression, whilst the constant restraint of fashionable dress, absolutely forbids the exercise indispensable to the attainment of organic strength. Exposure to midnight air, and a body reeking with the effect of excessive dancing, produce their legitimate effect, and at last, an early marriage and premature confinement, caps the climax of her misery, and the unfortunate female, hitherto regardless of the plain dictates of unerring nature, becomes an unwilling subject for medical treatment.

It is from such parents, and under such influence, that children are born and educated. What wonder, then, that their physical and mental conformation should present us with its appropriate result, a premature exhaustion of the entire system of vegetative and intellectual life. And how strange it seems, that any one accustomed to ordinary mental effort, and the general analogy of animal life, should not at once perceive, that unlimited exactions upon the nervous system and sexual organs, is always followed by corresponding prostration of the powers of life, and that it must be transmitted to posterity.

Who can say that these excesses are not often followed by those direful diseases, insanity and consumption? The records of our mad houses, and the melancholy deaths by consumption, of the newly-married, bear ample witness to the truth of such assertions. Are they not transmitted to posterity? Look at the frequent mental imbecility, and the pallid hue and attenuated form of the children who are the earlier products of marriage, and see the parents vibrating between life and

the grave, until the candid physician, or the terrors of death, teach them to abstain, and nature gathers up her shattered powers, and asserts anew her control of the organism. Should one lesson suffice and mature age be attained, again look at the offspring; if the first children survive, the last would not seem to be born of the same parents, so different are they in vigour and sprightliness: and in maturer life almost invariably more intellectual.

We have seen in a preceding part of this volume, that specific disease is transmitted to the infant within the womb, and we know that the physical and mental characteristics of parents, are thus entailed on posterity; how irrational is it then to suppose, that the actual condition of the parent, at the time of its procreation and gestation, shall not also leave its impress on the vegetative existence of the infant. The constant exhaustion of nervous energy by unlimited exercise of the sexual passions of the parents, will most assuredly seriously affect its development, and leave its results visible at a remote period of its existence. I need not refer to instances; every mother of several children, if she review her general conduct during gestation, will certainly see most plainly that those who were born under the most quiet state of her system, are blest with the most equally balanced powers of mind and body.

That there is a precocious development of the sexual desire in some children, does not admit of a doubt, and mothers should always be instructed by their physicians, that the commencement of its unnatural action

begins, though perhaps incredible to them, by prolonging the period of its suckling.

On this point we feel it a duty to explain our views at length, as it is undoubtedly the cause of great changes in the subsequent life of the infant. Were it necessary to advance any other examples of its extreme impressionability to morbid actions on its organism, than one already alluded to, viz., the complete rekindling in its system the venom of syphilis, when nearly exhausted in the parent, and investing it with its most virulent power of infection; we might point to those countless instances of actual physical changes, brought about by the operation of strong mental causes in the mother during the earlier periods of gestation; facts, I cannot forbear saying, which prove in their disbelievers an incredulity beyond reason. We might do this, yet we fear it would be impossible thus to arrest general attention to the actual extent of this subject, so full of interest to the observer of nature. We shall therefore endeavour to establish our proposition, that the commencement of excessive sexual excitability may be found in prolonging the period of suckling.

It is conceded by most close observers, that notwithstanding the original predisposition to the development of temperaments similar to those of the parents, the infant derives much of its distinctive peculiarity from very early impressions; every new idea of the physical characters of surrounding bodies, though it will at a more advanced age, and by comparison with others already attained, expand and connect itself with them so as to form a train of thought, still it must in the youngest in-

fant present itself in a simple state; a body must be hot or cold, hard or soft. There is no doubt that the nervous system, though it cannot refer its acquired knowledge to a mind sufficiently matured to determine its relations to other and more abstract qualities of objects, recognizes the difference of taste, temperature, smell, colour, hearing, &c. Very soon, even at two years of age in some children, comparison becomes a marked exercise of the mind.

The tendency of all knowledge, derived merely by the exercise of the senses in the infant, is to ensure the development of the body, and its power of propagating the species. To effect this we find at first instinctive knowledge, by which the infant seeks and draws the milk from its mother's breasts; this could not be the result of education, because it is required instantly to secure its end, viz., the continuance of life: it is wisely put, as it were, even beyond the power of the will; in short, it is instinct and only instinct.

Long before the ability to exercise the functions of the generative organs, they require an education of their peculiar nervous system; composed of what is technically called erectile tissue, they are, in common with the female breast and the lips, evidently under the control of mental emotions and associations, at a very early period of life; and as we shall subsequently see, these emotions when excessive, lead, long before puberty, to habits which sap the very life of their victims ere nature has half completed the development of the sexual organs.

The physician, if inclined to philosophical inquiry, will find no difficulty in verifying the premature indica-

tion of all the sexual propensities; repeatedly have I listened to the assurances of nurses, and several times been a personal witness of the fact, that the approach to the breast of the mother was productive of complete turgidity of the genital organs; and I have been assured that this at times, was followed by every appearance of the nervous exhaustion, attendant on the completion of the act of coition: when I say that I have also received the assurance that these feelings were reciprocated, and often excited designedly by these means, I hope it is unnecessary to remark, that such practices could only have been resorted to by persons of a truly bestial temperament.

Can we say, however, with truth, that nursing is not prolonged to favour voluptuous impressions, to a certain extent, even in the mother whose mind is comparatively pure? I fear not; professional and general education must, however, assume a much higher standard than it has yet attained, before this will form a subject of general caution and advice by the medical attendant. I hope that we may yet see the day, when the administration of medicines and the performance of operations, will not form the popular belief of the legitimate extent of the medical adviser's duty, but that he will become what his title implies, a teacher of wisdom and truth from the sacred page of nature.

It is very evident that these feelings of early pruriency must have had their origin in a morbid stimulation of the nervous system, and it is more than probable that a connexion similar in nervous impressionability to the

remarkable anatomical similitude, exists between the genital organs of both sexes, and the nipple.

The appearance of the incisor teeth, is undoubtedly the indication for withdrawing the child finally from the breast, and it is much to be regretted that any prudent mother should require the assurance, that stimulating food, spices, tea, and coffee, have a great tendency to excite the nervous system, and prepare it for the reception of that blighting vice that forms the subject of the next chapter.

It will be remembered that we are still speaking of the causes of spermatorrhea or seminal weakness: the moral treatment necessarily connects itself with and is suggested by the causes; the surgical, as it is equally applicable to both, will be considered at the conclusion of the chapter on onanism. Thus far we have given a general view of those causes, immediately before and after birth, which have a tendency to prepare the nervous system for sexual excess. We have confined our remarks on physical education chiefly to the female, because in the next chapter we shall have occasion to speak more at length on the early discipline of the male, and extend our remarks upon the general conduct of more mature life in both sexes; we do not wish to amplify our subject, though, when contemplating its real magnitude and importance, we are conscious of our sad inability to treat it correctly.

CHAPTER XVI.

ONANISM.

The word onanism is derived from Onan, a man's name; Genesis, chap. xxxviii, verse ix. The term though in common use is not correct, for Onan's crime was not self-pollution. See the chapter and verse cited. From the remarks on venereal excess and the assumption of an actual and general physical inferiority in our youth of both sexes, advanced in the last chapter, as well as the proposition that copulation "could only have been designed for the production of offspring," it will readily appear that the writer of these pages is not inclined to view this vice as a slight one. When a person of the most moderate pretension to the reasoning faculty, calmly and soberly reflects upon the actual effect on the adult human body of a legitimate indulgence in the venereal act, even in the most healthful and vigorous individual, and then fails to see the result that may reasonably be anticipated by an unlimited practice of the vice of onanism, in the bodily and mental development of a mere youth, we must suppose an obtuseness of intellect only to be accounted for by an actual indulgence, or a descent from those who have indulged in similar vices.

Indeed the fact of the predominance of sensual and generative ability over the intellectual, in many of our race, has given rise to a vulgar adage which it would not be seemly to repeat. We beg the reader not to suspect us of a witticism when speaking on such a subject; we merely designed to remind him of a truth so trite, that he has perhaps forgotten its value.

Let us suppose a person of sufficient intellectual power to know his true relation to the mass of living humanity surrounding him, and their control by emotions similar in every respect to his own, whether to the production of good or evil: when such a man, who cannot form an undue estimate of his own power of resisting vicious impulses, without the friendly aid and co-operation of virtuous and refined companionship, contemplates the hopeless condition of the mass of his fellow-beings in all that relates to the development of their intellectual nature, he can only deplore the misdirection of philanthropic effort to a remote contingency, rather than a certain result, by attention to the actual wants of a being having within himself the germ of many great and generous emotions.

Yet, if we look at humanity by the light of physiological science, we can never shut our eyes to the conviction that the known laws of his physical and moral being, when they form a subject of constant violation from the cradle to the grave, would, if one-half the attention were paid to their correct observance, elevate his spiritual nature far beyond the conception of the visionary enthusiasts, who are so constantly deprecating his lost and fallen condition. All society proves the

truth of our assertion; wherever the genial emotions of the soul are shut out by the severer regulations of asceticism, there will ever and anon appear some flagrant instance of vice, the result of smothered passion.

I need not point the reader to the long catalogue of crime, the consequence of monkish and fanatical institutions, nor yet direct his view to the shameless conduct of the false moralists of the present day, who would pretend to have us believe that the most innocent amusements of youth are a certain preparation for future crime. To the physiologist, who can only see the intent of nature through the written page of her living organism, the horse hair shirt and the fasts of the eremite, and the deprivation of every natural diversion by the fanatic, are equally available as a means of elevating the character and improving the mind of our species. He feels and knows, by virtue of that sublime and lofty science which has led him humbly and reverently to the footstool of his great teacher, that her laws are written indelibly upon every living blade of grass, every insect and animal ever moulded by her plastic hand, and are not to be disobeyed but with the certain result of impairing her handy work, and impeding her progress to the great end proposed, viz., the production of a perfect human being, with his intellectual and physical powers equally developed. Such was the original intent of nature: it would be unphilosophical to believe otherwise. What then has prevented the attainment of this great end in so large a proportion of our species? those who are fond of mystical hypotheses may form their own answer; we are

content to believe it the consequence of a disregard of her laws.

In the preceding chapter we have endeavoured briefly to show the influence of excessive venery in the parents, in the development of morbid propensities in the offspring; we now design to trace the evil to those results in which the child acts a voluntary part, and to show how this unfortunate vice is favoured by erroneous education and regimen, until all the energies of the mind and body are quenched within him, the brightness of day becomes like the blackest night, and he looks to the grave as the only refuge from despair. School is the place where the first lessons of the onanist are taken: at first the tender years of the child prevent the existence of any shame in the act, and he often practises it as a matter of emulation with his associates; the unfortunate obtuseness of too many teachers prevents the discovery, and if detected, a want of knowledge of its consequences causes little effort to correct the vice.

We have been asked by parents at what age this wretched habit commenced, and often have thought of the expressive language of that immortal man, who has carried it to its utmost extent in conveying the hidden emotions of our nature.

> "The canker galls the infants of the spring,
> Too oft before their buttons be disclosed;
> And in the morn and liquid dew of youth,
> Contagious blastments are most imminent.
> Be wary then; but safety lies in fear;
> Youth *to itself rebels*, though none else near."

As early as eight years, we are satisfied of the existence of such habits. The vegetative powers of life are so strong, as to conceal the evil effects upon the organism, but in a few years the pallid hue, lack-lustre eye, and emaciated form, and the impossibility of application to mental effort, show its baneful influence. As puberty approaches, the passion increases from what has so long stimulated its morbid appetency, and it soon becomes evident to the observer, that some powerfully depressing influence is checking the development of the body. Consumption is talked of, and perhaps the youth is removed from school and sent into the country.

This is one of the worst possible movements. Removed from the ordinary diversion of the ever-changing objects of the city, and the powers of the body too much enfeebled to give zest to the healthful exercises of rural life, he turns his thoughts inward upon himself, and is at once in a still stronger grasp of his besetting sin. Still the danger is unsuspected.

If the patient be a female, the approach of the menses is looked for with anxiety, as the first great epoch in which nature is to show her saving power in diffusing the circulation, and visiting the cheek with the bloom of health. Alas! "Increase of appetite has grown by what it fed on," and the energies of the system are so prostrated, that the whole economy is deranged. That beautiful and wonderful change, in which both mind and body undergoes so fascinating a transformation, from the child to the woman, is looked for in

vain; the parents' heart bleeds with anxiety, and fancies the grave but waiting for its victim.

Should some thoughtful physician now chance to be called, he will probably find an entire freedom from all serious or organic change, in any of the contents of the three great cavities of the body, but the greatest derangement in the functions of all the organs. Universal lassitude of the muscular system, unrefreshed by sleep, irregular and often enormous appetite, with dyspeptic symptoms, acceleration of the pulse, with hot hands and flushing of the body, dryness of the skin, pallid countenance, and eruptions of the face, pain in the back, often spasmodic and violent, slimy thick deposit, and high colour in the urine, great dryness and heaviness of the eyelids, which are tinged with red and blue underneath, frequent black spots flying before the eyes, with temporary suffusion and loss of sight, loss of memory and want of attention, great mobility and restlessness, constantly changing the position and employment, lascivious thoughts, with a horror of female society, or male, according to the sex of the patient.

To these symptoms, may be added nocturnal emissions of semen, and soon a constant flow of mucus, mixed with semen, with loss of the power of erection. Fatuity and epileptic fits often close the scene, in one of which the patient may expire. During the superintendence of Dr. Wilson at the Bloomingdale Asylum, this sad result occurred to two of the writer's patients:—reason had for some time left them, and both died in an attack of epilepsy. They were of both sexes, and about twenty years of age.

There is an indefinable expression about the eyes and general manner of such patients, that at once addresses itself to the attention of those who study the physiognomy of disease. They are restless, and often averted from the person he is addressing. The pupils are dilated. There is no earnestness, "no speculation" in them; no repose of manner, but a hurried address, as though frightened, and a rapid transition from one question to another:—these persons question only, they rarely converse. The mind is incapable of connected effort, and intent on nothing but lasciviousness, or sad forebodings of its unhappy state.

If compelled to mingle with company, the manner is evidently constrained, and impatient of particular attention. They seem aware of their peculiarities, and apprehensive of discovery. Nothing is more desirable to them than solitude, and yet nothing they more dread, for fear of themselves. In public institutions, where large numbers of children are assembled, it is easy to point out those afflicted with onanism.

If at a school, where the disgusting and brutal system of corporeal chastisement is followed, the aspect of the poor child is quite pitiable. Utter inability to commit his tasks, together with an assurance of the inevitable consequence, adds a very painful appearance of apprehensive solicitude and constant tremulousness, to the characteristic symptoms of the disease, that painfully indicates to the observer the entire state of the case.

In prisons, this is also still more apparent; for there is added, in the adult criminal, the brutal obtuseness and despair consequent on long detected crime.

In colleges, the student presents an aspect of moody and abstracted melancholy. The mind too cultivated to be ignorant of the causes of its distraction from connected effort, is nevertheless too feeble to resist the fiend that besets it, and there is an apparent conflict of the more exalted and baser emotions, very painful to behold.

In lunatic asylums, the most melancholy exhibition of the results of the vice appears. The countenance is actually sodden and quite destitute of expression. Neither mirth nor grief ever visits it. The body is inactive for days together. They may often be seen on their knees for hours, gazing on vacancy, with their hands strapped behind them, to prevent open commission of the vice. Should a sound of the voice occur, it is rarely articulate, and we are reminded forcibly of Collins' expressive description—

> "With woful measures wan despair,
> Low, sullen sounds—his grief beguiled."

Epileptic and convulsive attacks occasionally vary this mournful exhibition, in one of which the patient may expire.

Yet it is difficult to trace the appearance of the sad habit, where it produces a more distressing influence upon the mind, than in a female boarding school. All the solicitude of the physician is awakened, and he becomes conscious of the wide difference between frivolous accomplishment and mercenary coldness, and the happy influence of parental and domestic education. In young girls, the difference between those whose faculties are crippled by onanism, and their companions,

is extremely apparent. The accomplishments of music and dancing, are from their very nature so opposite in their requisitions upon the mind and body, to that state of general lassitude, the inevitable result of this vice, as to present a powerful contrast between the employment and pupil.

As to the extent of this habit, I am thoroughly satisfied that if its actual prevalence were known to parents, they would rather their children should grow up in ignorance, than subject them to such sad influences, as are too often found in boarding and day schools. This must ever exist, until teachers themselves are properly educated, and parents are willing to retrench vulgar luxuries, in order to afford competent intellectual and physical culture to limited numbers of children, in place of the "young ladies' seminaries," &c., of the present day.

We do not design to write an essay on ethics, but it is part of our subject to show how the original tendency to excessive nervous excitability, impressed upon the child by the constitutional errors of the parent, may be, in some measure counteracted, by an education, founded upon the never-changing laws of his animal and mental nature, or, in other words, upon true physiology.

If we had the power of Combe, or Isaac Taylor, we should feel some ability to impress the mind of the reader, with the conviction of radical error in our whole system of education. We have already termed it a mania, and given a slight hint, when speaking on venereal excess during gestation, and the errors of long suckling,

of its morbid stimulation of the nervous system, and shown how it leads to the vice of which we are treating, or insures an early death, by some of the numerous ills of youthful life, under the denomination of scrofula.

We would not convey the idea, that all scrofulous children are guilty of this vice, for it is often otherwise; but we are strongly impressed with the conviction, that *venereal excess or onanism* in the parent, with the constant and increasing desire for youthful precocity, *is the actual root of tubercular or scrofulous phthisis, or consumption.*

It certainly was the intention of nature, to form a being that should attain maturity: and as this intention is often rendered abortive, where fortune, and all the other aids of civilization and parental affection, conjoin to its attainment, there must be some error, of great and consuming power, to account for the constant failures in the attainment of her end. Does it seem then, on a first glance, unphilosophical to select that passion, which is acknowledged to be the strongest in its action, and the most depressing in its influence, of all others belonging to our nature, as a probable agent in producing organic and fatal changes in the human body? and should we find that the whole system of youthful training is calculated to foster such propensities, will it not be a legitimate inference that the true method of amending the evil will be to alter the system?

The self complacency and ignorance of most parents will generally prevent anything like an acknowledgment of error to their family attendant, should he be intelligent or independent enough to point it out. The

utmost extent of their reasoning is, that such suggestions were quite unknown when they were children, and yet they survived; it would be too severe a tax upon their self-love to ask these parents in what condition they survived. It is quite probable they present many personal indications of erroneous education in their parents and themselves; probably at middle life destitute of hair and teeth, and tremulous with nervous agitation, they are unable to undergo ordinary mental or bodily exertion, and form wretched examples and miserable protectors to their offspring. Yet these people are perfectly willing to assume all the responsibility of their children's training.

The first great error in the development of the nervous system after the child is taken from the breast, consists in loading it with sweltering and ill made clothes, and putting it to sleep upon a feather bed: a constant and unnatural degree of heat is thus kept up, and that of all other causes has a tendency to foster morbid sensibility. Should there be two or more children, they are often placed in one bed; this, besides producing in summer excessive heat, often induces them to exhaust each other by tickling; a most pernicious custom, and one in which all children indulge: besides, it overcomes a wholesome feeling of independence which they feel when they can be alone in the dark without fear of hobgoblins.

The custom of telling them ghost stories it can hardly be necessary to reprobate; none but the most pitiably ignorant persons could possibly allow it. It has, however, of all other causes, the greatest tendency to

excite and exhaust the nerves. Tea and coffee, with much butter or greasy diet, has a pernicious influence, and should never be allowed children. Milk, eggs, bread, and sugar, is their proper nourishment, and moderate quantities of animal food. This should never be denied to scrofulous children particularly. Farinaceous diet they must have to the full extent they desire, and ripe fruit during the summer. Cold and shower baths, under competent medical advice, have a charming influence in developing a good nervous system. We consider this treatment to embody the intention of nature. The errors just enumerated are to be avoided—above all other things, excessive warmth of clothing and bedding, are to be carefully shunned.*

School is out of the question till the sixth year; and if there should be any predisposition to unusual delicacy, the eighth is quite early enough, and then never over an hour's attention at one time should be exacted. After the eighth year, the imaginative faculty largely assists the early errors of education; and domestics and larger companions, by obscene conversation, and prints, soon poison the mind, and it is shocking to know, often by direct attempts upon the person, communicate a full knowledge of the vice.

Our whole system of domestic aid is so wretchedly managed, that it is sickening to the heart of every in-

* Will the reader believe that the barbarous corset, that instrument of cruelty and ignorance that would put a flat head Indian to the blush, is sometimes applied to children of eight years by American mothers? Alas! it is too true, and the law for preventing "cruelty to animals" is not enforced.

telligent mother to reflect upon the inevitable effect of such example upon the minds of her children. If no actual vice of the kind we are considering exist, still there is always an extensive influence on the character, tending to the development of the lower and animal emotions. Excessive dress, and general coarseness, and vulgarity of expression and appearance, have a constant effect in shutting out habits of a simple and natural refinement, of attire and expression, and that quiet manner that is so characteristic of good breeding and correct example at home.

In families where much society is kept, there is often a carelessness of expression in presence of children, and an injudicious notice of them by our sex, that can soon be traced in their actions and deportment, and thus we often find habits originating, of a character evidently tending to sexual precocity. I have heard children of a very tender age express great desire for the development of the breast, and actually allege, in language not to be mistaken, that they knew it to be agreeable to gentlemen.

The "canker galls the infant of the spring," indeed full early in our "rapid country;" and we are fairly open to the censure of intelligent foreign observers for our insane love of precocious development in children. The passionate adulation of doting mothers, and ill-judged praises of our own sex for some premature impertinency of their mismanaged, or rather unmanageable, offspring, I have often seen elicit the smile of pity from the thoughtful physician. But we must cease; it is not pleasant to trace such weaknesses, nor have

we the space to occupy with their detail. When the patient presents himself before us, it is our business to benefit him, if possible.

I need not say, where the treatment depends as much upon moral means as on surgical and dietetical efforts, perfect candour should be used. The physician, however, if at all acquainted with human nature, can very often suffer the patient to infer his comprehensive knowledge of his case, without charging him in the beginning with all his folly. Such a course should never be taken unless in cases where ignorance demands intimidation. In a great number of cases of both sexes, and in almost every condition and occupation in life, I have found no class of diseases that required a greater amount of sagacity, sympathy, and firmness, than in those involving these habits, and a suspected loss of virility.

In the remarks made on gleet, I have given the only reason I am willing to entertain for the extreme anxiety on this subject; yet I must say, that a large portion of such patients, seem to be influenced only by the more sensual estimate of their powers. Let us hope that the happy influence of philosophy, in improving the condition of the species, will ere long, teach them the beauty of humanity, when all its physical and moral developments blend in harmonious proportions; then they will view the gift of virility only as the union of their own identity with ages yet to come, in which their offspring may fulfil the entire purpose of their creation.

We must, however, come down to the living reality, and if we would serve our patient and win his confidence, approach him with a manner adapted to his

actual nature. It is the sententious gravity of many of our profession that repels the patient and prevents his showing confidence; he does not believe that such frigidity of exterior can cover any warmth of feeling and interest in his case;—shall we say that he looks for a little more evidence of the possession of actual knowledge? it is often so, if we are to believe the assurance of the patient; when he feels that he is actually benefitting by our prescription, he will express great surprise that his disease was not discovered by the practitioner whom he had previously consulted; yet it oftener happens that he seeks the aid of a surgeon from mere bodily exhaustion, and seems scarcely conscious of the influence of his habit upon the constitution.

In far the majority of such cases, it is left for the surgeon to discover and inform him of the true nature of his case. This he should do in a manner evincing sufficient sympathy to interest the patient in his advice: should it be discovered upon a proper series of questions concerning the symptoms, that the mind is much affected, and the patient be naturally of a low order of intellect, the most judicious manner of proceeding may be at once to excite his fears for his safety.

If the surgeon perceive a decided unwillingness to confide his secret, and on a review of the symptoms and general physiognomy of the case there remains no doubt of the habit, he will do well after having assured the patient of his real danger, to inform him that he will prescribe upon the conviction of the existence of loss of tone in the seminal ducts, produced by excess of vene-

real desires; letting the patient infer his entire knowledge of the habits, till entire confidence is produced.

If the prescription is followed, there will be little doubt of the fact; and this course will produce a correct understanding between them in the beginning; the patient will admire the acumen and delicacy of the surgeon, and resolve to obey him. Nothing can be more difficult than to convince him of the extent and power of the causes that have produced his propensity, and their intimate connexion with the symptoms to be treated. He cannot be made sensible unless of a decidedly intellectual character, of the power of those errors in his early education which still operate upon his nervous system, and require all his efforts to break up their morbid association. Hence it is that we are often compelled to appeal to his fears, and to assure him that our treatment can only avail in preserving his life, by his yielding implicit obedience to all our requisitions.

The first must be to discontinue the habit; if onanism, at once and for ever; if excessive venery, also total abstinence for a time, only to be resumed at the advice of the surgeon. This cannot be done by an effort of the will alone, for self control has long since been abandoned. Moral and medical means must be united if we hope for success; all gloomy associations must be broken up; cheerful society of both sexes and constant and agreeable employment, not taxing the muscular powers of attention too largely, must be prescribed; gardening, billiards, the lighter mechanics, &c., free exercise in the open air, riding on horseback, the application of cold water three or four times daily to the private parts, and

between them and the anus particularly, or the cold douche as recommended for leucorrhea, are admirable and indispensable agents in diffusing the nervous excitement and arterial circulation, and preventing the accumulation of morbid currents at the genital organs, and their re-action on the mind with the impulse to onanism. When in bed, the patient should lie on his belly; nocturnal emissions almost always occur when lying on the back.

Nothing can be done without local applications of cold water, and free exercise; the bowels must never be constipated; fruit is the best aperient; no medicine, but, if needful, rhubarb may be used. Solitude and heat are the greatest inducements to onanism; hence the patient should arise the moment he awakes, and stand naked on the cold floor. Tea and coffee, with spices and much greasy diet, operate most decidedly on the nervous system, and secondarily on the genital organs: this is the explanation; whatever excites the nervous system excessively, not only adds to pre-existing irritation of the genital organs, but induces a morbid desire for a vent, and that unfortunately for the poor patient is too easily attainable. It is this facility of procuring his customary excitement that renders onanism so much more exhausting than venery; it can always be indulged in: doubtless the depressing influence is aided by a conviction of the unmanliness of the act; nay, we know this to be so, by the necessity we are under, in the morbid doubts of their virility often existing in onanists, to recommend marriage as the only curative measure in many instan-

ces. The horror of female society also proves this, for the libertine, unlike the onanist, seeks it.

If it were possible for the enlightened physician to induce a rational system of education, he might render the most efficient aid in checking this loathsome vice, by diffusing the pleasureable emotions of youthful life in a more equal manner, and varying the repulsive detail of labour or school by well selected and instructive amusements: music, the principles of mechanics and the sciences, particularly chemistry and anatomy, gymnastics, experimental agriculture, declamation, &c., are all most efficient aids, and such as cause the philanthropist to sigh when he thinks how attainable they are, and how completely they might take the place of the present wretched system, and all be fully carried out, even in our public schools, if legislators were but enlightened.

What a startling fact is presented to our view in an adjoining state, where the system of public education is acknowledged to be in the lowest condition, and the statistics of insanity show a numerical extent, with a single exception, equal to any portion of the globe containing a similar number of inhabitants. Ask any enlightened physician the principal causes of insanity in an agricultural district, and he will tell you fanaticism, onanism, bad diet, and repulsive and monotonous employment, and these every one knows are favoured by ignorance of the true laws of our nature. There is in our climate a remarkable want of circulation in the skin, and a marked increase of nervous excitability, that does not exist in their English ancestors: the consequent frequency of the depressing emotions, and the absolute

abandonment of popular amusements in the agricultural districts, with the immoderate use of tea and coffee, tobacco, and too often liquor, has proved almost too much for poor humanity.

The extent and elegance of our lunatic asylums is a wretched subject for boasting; the expense were far better applied to the public schools. We speak from extensive experience, when we assert that this habit is almost universal in public institutions, and is utterly unsuspected in most instances by their supervisors. They have fixed an artificial standard of requisition upon the powers of mind and body of their inmates, and nature will not yield to it; variety is necessary in all the pursuits of humanity whether of the child or the philosopher: even the adult was never intended to pursue any employment intently for more than two or three hours. Not only the individual set of muscles used, but the organs of the brain controlling the movements become exhausted, and demand the recuperative effect of change.

The onanist resorts to the most available means of excitement: he has been confined to the repulsive and exhausting details of school or labour, and he seeks the utmost concentration of its opposite, viz., pleasurable emotion. The well-known sympathy of the affections of mucous membranes, admits us to the secret of the power of venereal excess in producing bronchitis in many individuals, whose pursuits do not admit of their indulgence in the innocent recreations they are accustomed to call sinful. Their appetite for pleasure becomes morbid from unnatural deprivation, and they seek it, as the o'ertasked school boy flies from school and the rod to the play-

ground. But onanism is not confined to children and youth by any means: occasionally, men of every age and variety of pursuit, literary and mechanical, are known to be its victims by every practitioner of intellect and experience. The writer, had he been inclined to betray confidence, might have preserved dozens of letters from every part of the country, conveying the most moving and graphic pictures of distress from long abandonment to the vice.

So far we have spoken of the constitutional remedies for excess of venery, as well as onanism: they are addressed to the mind and body generally with the exception of the local application of cold; a measure we believe to comprise all that can be done in the way of direct application, without the immediate agency of the surgeon: it is fortunate that its action is so comprehensive, for it will doubtless effect, in most cases, in connexion with the general regimen and entire discontinuance of the habit, a complete cure, or at any rate sufficiently invigorate his constitution to make marriage, (if the patient is an onanist) advisable.

That is the most certain method of interrupting the morbid desire; and is always advised by the intelligent surgeon as soon as the constitution can be sufficiently restored. An entire cessation of the spermatorrhea need not in all cases be anticipated, for the excessive exactions so long made upon the seminal secretion, has caused an unnatural activity, and often an excessive production: this with the morbid conviction of loss of virility, and the moral necessity of a total abandonment of the vice compels the surgeon to advise mat-

rimony when the patient fancies himself unfit. To the intelligent this may be explained; those who are not so must trust their surgeon.

The thousand advertised nostrums of the day, such as invigorating, procreative, lucina and other cordials, are all most infamous deceptions, designed to gull the credulous, and to excite the jaded appetite of the libertine. These medicines are of course all taken from the pharmacopeia of the physician, and I am sorry to say that an erroneous opinion of their action, has prompted their occasional prescription by well-meaning and intelligent men. A more acute and thorough investigation of their action, has satisfied the physician that they can only operate as they do in gonorrhea; i. e., generally, on the entire mucous membrane of the bladder and penis; hence their highly injurious action must be apparent, for there has already been excessive stimulation, and the parts want rest and invigoration.

We repeat it then, no medicines will ever be given by the enlightened surgeon, by the mouth, for the purpose of controlling *by their specific action* spermatorrhea or the involuntary seminal discharge. As in leucorrhea we often resort to tonics for their general action on the system, and their secondary and local reaction on the relaxed and irritable seminal ducts, with the happiest effect; but we use *general and tonic agents*, not stimulant and specific.

The only local means to be used by the surgeon, is that devised by Mons. Lallemand, a distinguished French surgeon; the application of nitrate of silver to the mouths of the seminal ducts. This admirable suggestion is pre-

cisely analogous in its intention and action, to its use in leucorrhea; it is done to alter the action, i. e., to restore the contractility of the mouths of these ducts, which by their relaxation, permits the semen constantly to flow into the urethra, from the two receptacles at the base of the bladder, as described in page 218. There are some very important cautions and suggestions to be made in relation to this remedy, upon which we conceive its efficiency as a curative agent will entirely depend. They relate to the proper cases for its application, and its frequency.

We premise, and refer to what we have said when speaking of spermatorrhea caused by venereal excess, page 227, that this remedy is applicable to both, when the semen flows away, either without the power of erection, or when it exists to a limited extent. It is far oftener required in cases of onanism, by reason of the greater frequency and extent of spermatorrhea from the latter cause. Moreover, we shall find when persons apply to us for aid, who have been addicted to venereal excess, a totally different conformation of mind and temperament; there is a union of the imaginative and physical or nervous power, that the confirmed onanist never possesses; the debauchee has an activity of mind and body that keeps up to the last, and renders him a far less suitable subject for a stimulating local remedy, than the onanist, who is supposed, if so far advanced as to confide his troubles to a surgeon, to be completely wilted down in mind and body. To the former we shall do better to present moral and constitutional remedies to restrain his propensities, whilst to the latter we may be

compelled to address local means, to shut up the sources whence his very existence is draining from him, till we have time to address other remedies with any prospect of success.

The former, as well as the onanist, in the early stage of his troubles, is supposed to have the power of erection; and if they do not produce emission by voluntary stimulation, they are incited thereto by dreams, or mental and lascivious causes, even when awake; this then, is the excess of irritability we spoke of; *to such cases caustic should never be applied;* the treatment is constitutional entirely with the exception of cold, which is equally applicable to them both.

I know that caustic has been applied as in stricture, to overcome excess of irritability, but that is loose reasoning and an erroneous conclusion. The morbid state is in the mind, and the irritability in the seminal receptacles, from too constant distension owing to increased secretion of semen, from the excessive demands upon the testicles, that produce it. In stricture, the spasm produced by muscular irritability, is caused by actual morbid alteration in the structure, and the stimulus is the urine, or the surgeon's bougie; the mind has nothing to do with it. This application of caustic to *active* or as surgeons call it, *entonic* spermatorrhea, is totally erroneous and can do nothing but mischief.

Its use must be confined to the *passive* or *atonic* state, in which the semen runs away without erection, or with a very partial and momentary degree of it, and without dreams or voluntary means for producing its emission

in short the patient must present the ultimate symptoms as already detailed.

Again I must crave pardon for serious objections as it regards the frequency of its application, even in the hands of surgeons for whose abilities I have the highest regard. Remedies never act in a similar manner on any two individuals, but more especially in diseases where the mind has a degree of control so supreme as in those of the genital organs. The same cautions are necessary as in the treatment of syphilis and gonorrhea. A person o frelaxed fibre and scrofulous temperament, may very soon get his seminal ducts in a passive state, and present every symptom of the onanist of many years. Of course there must be great original difference in the contractility of these parts, and they cannot be equally susceptible to remedies: there is no possibility of forming a correct judgment, without close observation of the effect of the remedy in every case: it should never be reapplied until its effect is decidedly decreasing. I have repeatedly been obliged to apply it once only in a fortnight and even a month: for by its more frequent application in the same case, I have been satisfied that I had produced increased irritation of the seminal receptacles themselves, though they are some distance from the mouths of their ducts, where it was applied.

The surgeon may also expect often to be disappointed in the action of the remedy for two or three days, and then see its palpable benefit for an entire fortnight; there may even be decided power of erection, especially if cold water is freely used to the part, and the shower bath and other invigorating treatment adopted at the

same time. All the regimen previously directed must be fully carried out, and the surgeon must constantly suspect the patient of a continuance of his habit, and give him emphatically to understand, that by no possible means can he benefit if he be not faithful in abstaining even in mind as well as act. Tell him when the fiend approaches, to flee at once out into the open air, and divert his attention by change of objects and association: if in the morning and in bed, to arise instantly and stand on the cold floor and use freely the cold hip bath, cold applications, or the douche: to sing, to declaim, to dance, anything to divert the mind from its morbid state.

But above all other things, let him force himself as soon as possible, to esteem the society of virtuous and refined females; true, he has lost the habit of yielding those thousand nameless attentions, and that implied deference of manner so winning to the female heart; he can no longer converse with calmness and dignity, and inspire respect for his attainments; his eye has lost its brightness and his frame its strength, yet all these may return under the genial influence of health and society, and a calm but determined resolution, with the aid of his faithful surgeon to be a man again. Then will the brightness of the eye, and elasticity of step return to him; memory too will open her magic store, and the hue of health will revisit his cheek: instead of the vacillating purpose and constant mobility of body and mind, the fitful startings or heavy stupor of the night, quiet dignity of manner, and the calm sleep of the infant, will add gracefulness and life to his action, and

the approving glance of the sex will cause him to look back with horror upon those years in which he forgot to respect his true manhood.

The amount of nitrate of silver to be used at one time should never exceed the bulk of a grain of wheat, which we always use in a powdered state, for reasons connected with our mode of applying it; this quantity would be quite inadequate, were its direct application to the very mouths of the seminal ducts, subject to the least uncertainty; its action would be quite useless, if deposited within even half an inch of their openings in the urethra. Monsieur Lallemand's instrument for this purpose is in my opinion subject to the variation of at least one inch in the deposition of the caustic, even in the most careful hands.

In the instrument I am about to describe, there can be no possible doubt of its exact application to the ducts; indeed the surgical reader will see by the description, and a glance at the cut that it must fall directly upon them. All that has to be remembered previous to its description is, that the ducts open, making all allowances for possible differences, from half to three quarters of an inch from the entrance of the urethra in the bladder.

A catheter of small size, without any other holes, is pierced with a slit one eighth of an inch in width, and three quarters of an inch in length, which ends half an inch from its point: a round and oblong box, which which will hold the requisite amount of powdered caustic, and has a free opening in its lower side, corresponding with the slit, is attached to a rod of sufficient length, and thereby pushed up to the extreme end of

the catheter, occupying and filling the half inch beyond the slit: in this box the caustic is deposited, after having been drawn down by means of the rod till its opening appeared opposite the slit in the catheter; as soon as it is charged, it is thrust back to the end, and is, of course, closed thereby.

The surgeon passes the catheter slowly into the bladder, the patient standing, and knows that the urine cannot appear till the slit enters the cavity: the point is then better than half an inch within the bladder, the slit lying just beyond the ducts: drawing the catheter forward just enough to prevent the issuing of the urine, will bring the slit exactly over them. The surgeon now draws the rod forward, when the opening in the box comes opposite the slit in the catheter, and the caustic falls in a pure and dry state upon the mouths of the ducts: any little moisture will gravitate towards the curve of the catheter, as the patient is standing. I have attached a small piece of sponge to the rod, between the slit and the box, which not only prevents the possible access of the urine to the caustic, but in passing over the ducts, removes any moisture or mucus that may adhere to them. If the box is neatly fitted, this is not requisite, but it is perfectly practicable, and renders the instrument beautifully complete and effective.

I have but one caution to give in passing this instrument, or any other for this purpose. There is very often a relaxed and puffy condition of the mucous membrane, and also of the prostate gland, and perhaps an enlargement of the latter which opposes its progress. There is also a spasmodic affection of the anterior edges

of the levator ani muscle on either side in contact with the membranous part of the urethra; in an irritable state of that canal, these edges may grip the instrument and for some minutes oppose its entrance into the bladder; this requires the utmost steadiness of gentle and continued pressure; no force must be used greater than the very moderate effort of the thumb and two first fingers may make, on the most delicately made catheter, without bending it; the patient always standing, as the pressure and direction of the instrument can only be properly estimated in that position. I would never recommend a catheter too delicately made, however, as its bending or cracking might produce laceration of the urethra in withdrawing it; I only wish to convey an exact idea of the necessary pressure which the surgeon will often have to exert in these cases, by a suitable illustration.

The instrument may then be withdrawn and the patient instantly feels a slight burning. After a minute has elapsed he may pass his water if he pleases: sometimes it may be an hour or so before he can effect it; this is of no consequence; the ability will come by waiting.

I have added in describing the speculum alluded to at page 215, with a slight alteration in the manner of making it, the account published in the Boston Medical and Surgical Journal, with a plate: also one of the improved catheter for applying the caustic in stricture, described at page 144. It is simply a longitudinal

section, and will enable any instrument maker who is willing to yield sufficient attention to the description and plate, to prepare it with perfect accuracy.

The plate of the instrument for applying caustic to the mouths of the seminal ducts, described at page 254, is also a longitudinal section; and the Polypus Ligator alluded to at page 205, is figured a little less than half the size: the description and mode of application follows that of the speculum.

The catheters in the plates are half the proper length; the curves and diameter as intended when made: that for spermatorrhea is smaller at the point: this is intended to pass more easily, in spasm of the muscles alluded to in the preceding page, and to keep the opening in the box true to the convexity of the catheter, so as to retain the caustic

DR. DIXON'S NEW SPECULUM.

[From the Boston Medical and Surgical Journal.]

It is to be regretted that an instrument so valuable in principle as the speculum, should for so long a period have failed to fulfil the entire object of its distinguished inventor. That this is true, I believe most practitioners accustomed to its constant use will admit. An extensive, and I regret to say somewhat miscellaneous practice, (I allude to quality) requiring the constant use of the speculum either for the uterus, rectum, nostrils, or ear, has convinced me that the construction of these instruments is not only defective, but in many instances utterly subversive of the object intended by the operator, viz.: a distinct view of the parts. I must assert with a degree of confidence only excusable from constant familiarity with the use of every variety of these instruments, and the perfect liberty of aspersion to which this expression of opinion subjects me, that one of the principal objects sought for in their construction, viz., reflection, is utterly thwarted by the second and paramount necessity, dilatation. Thus the speculum of Ricord, with its two or four broad and massive burnished blades, becomes useless as a reflector, when dilated as it must be if the os uteri is to be seen at all, whilst the breadth of the blades prevents a proper examination of the mucous membrane of the vagina. Now the question is, and it can only be properly referred to practical men, is the reflection of any consequence whatever? I think a negative answer will be given; and

if so whence arises the necessity for their massive and expensive structure ?

The accompanying draught illustrates the instrument : it is in every respect, including the thickness of the wires and dimensions of every part, precisely what has proved a very efficient instrument in my hands. Six steel rods four inches in length, of very hard drawn wire, are inserted equidistant into a brass or steel ring or collar, one inch and three-eighths in diameter, from the centre of each hole to its opposite. These holes are drilled so as to give a flare of two inches from the probe point of each wire to its opposite ; the probe points are made of common solder ; the handle is of wire twice as thick as the rods. A small eye of solder is attached to the lower rod, through which a strong cord of six strands of silk is to be reeved, encircling the other five rods, and one end is to be passed each way through the eye, and then both brought out of the mouth of the speculum. Pulling on the two ends of the cord will bring together all the probe points, the eye being the fulcrum. When closed, wind the cord round the handle and introduce the instrument at your leisure, instructing the patient to be calm and avoid resistance. Then unwind the cord and allow the rods to expand. The whole vagina is thus exposed. Should you desire to excise a small tumour, or remove folds of the vagina, for prolapsus, (an operation, by-the-bye, which will come into general use, and which I have repeatedly done with success) the rods become a guide, and with a long and slightly curved scissors, the folds may be excised with as much accuracy as in hare lip : very distressing

cases of prolapsus may thus be cured. In the treatment of chancres, and diseases of the neck of the womb, the instrument is quite indispensable. After the application of nitrate of silver for leucorrhea, as described at page 215, the rods will require to be instantly polished to perfect brightness, or they will rapidly corrode after use.

This instrument has just been beautifully made by Mr. William E. Rose, son of Peter Rose, surgeon's instrument maker, 412 Broadway, New-York.

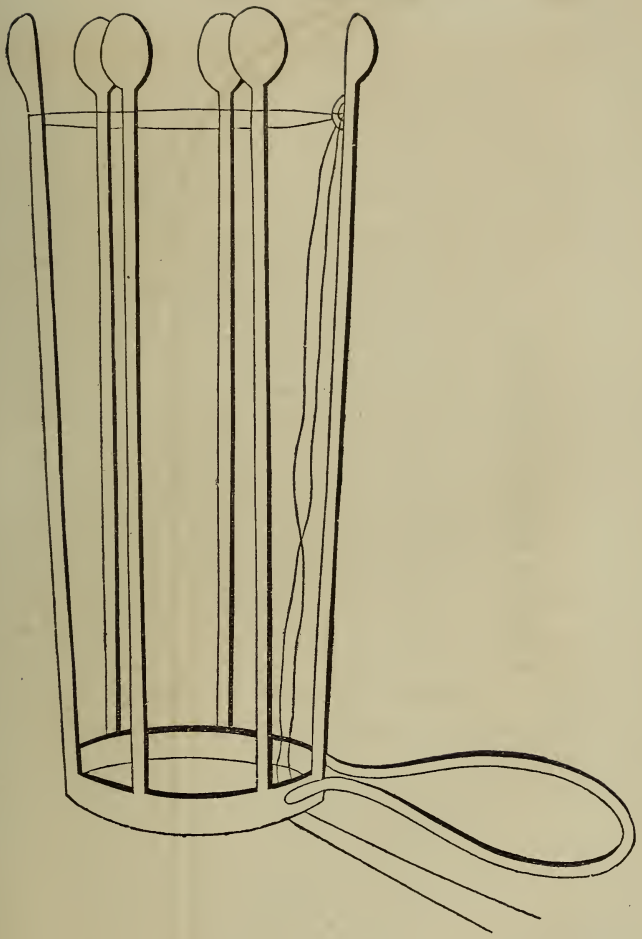
DIXON'S POLYPUS LIGATOR.

A description and plate, with several cases of the application of this instrument to uterine polypi, was also published in the Boston Med. and Surg. Journal, Vol. xxx. No. 1. The plate appended is a vertical section of a little less than half the size of the polypus and distended uterus, as they most frequently occur, though they are subject to great variation in dimensions, &c., see Denman, Hunter, Dewees, &c. The writer has lately removed one the size of a goose-egg.

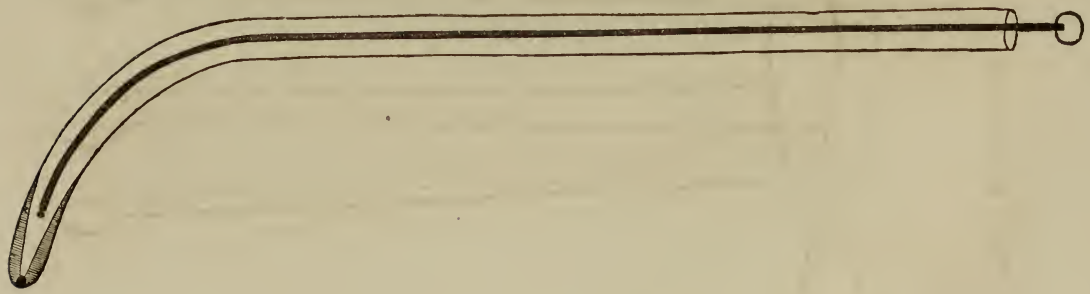
The instrument, maintaining its proportions as figured, may be adapted to any size, and can be prepared with the utmost neatness and despatch by a common tinman. It must be made of hard drawn wire, one-sixth of an inch, and no less, in diameter, or it would not have sufficient resistance to be handled properly. Two probe points of solder are to be attached to the ends, and perforated, so as to admit a strong ligature

of six strands of silk. A small knob is appended to the handle, round which the ends are to be wound when the tumor is strangulated.

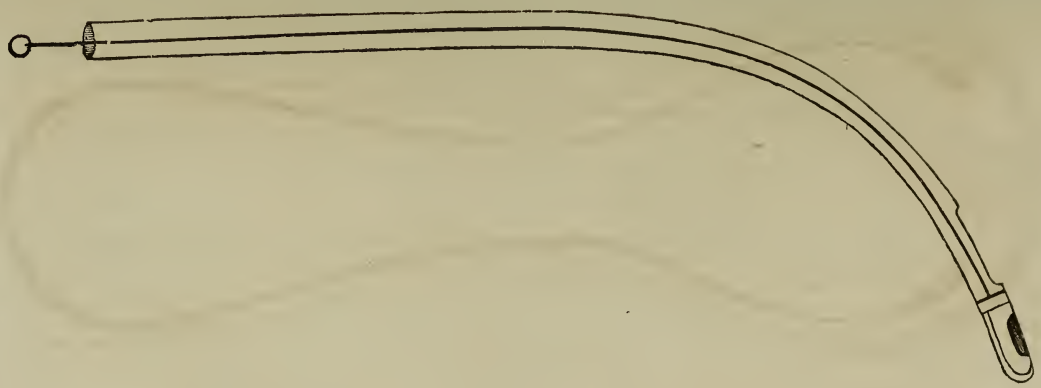
The surgeon is to pass the instrument closed, on his left index finger, over the abdominal aspect of the tumor. As soon as it has passed fairly into the womb, it is suffered to expand, thereby bringing the ligature athwart the tumor; pass it steadily as far as it will go, and then depressing the whole equally, it may be strangulated by several turns, or a single one, which will cross the thread; traction on the ends of the ligature will then answer the same purpose, winding them in either case round the knob on the handle. If the latter method is adopted, the instrument may be withdrawn at the end of twenty-four hours, leaving the ligature; the vitality of the tumor will be destroyed by that time. Unless the surgeon is familiar with its use, however, he had better twist it a little daily, and suffer the instrument to remain, the patient lying in bed till the tumor and instrument come away together. All that part of the neck of the polypus that is beyond the ligature, and between it and the womb, will be as effectually destroyed as though it were included; experience proves that it invariably disappears.



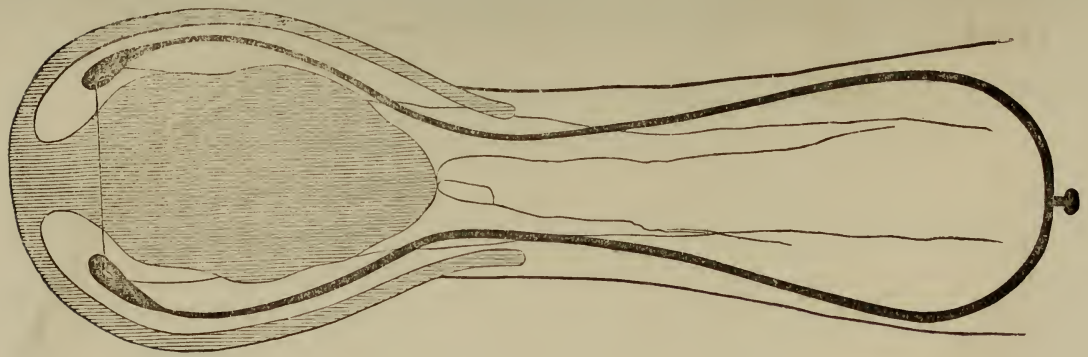
Speculum Vaginæ.



Stricture Caustic Catheter.



SPERMATORRHEA CATHETER.



Polypus Ligator.

APPENDIX

TO THE NINTH EDITION.

ON THE TREATMENT OF STRICTURES BY INTERNAL INCISION.

It will excite no surprise in those who have watched the progress of operative surgery for the past ten years, that the ideas of surgeons have undergone extraordinary changes in regard to the treatment of Stricture. The natural inclination we all have to follow the dicta of the books, and to be guided by the cautions of our surgical instructors, predisposes us to follow in the train of those who are governed by the "authorities." But those venerable gentlemen, "the Fathers," in all the branches of science, have been so long standing on the shore of time, and casting their old drag-net into the stream of Tradition, that they have encumbered it with a vast heap of rubbish.

In showing the reader that we have been too long governed by the authorities in treating this aggravating affection, I shall be obliged to retrace the steps by which I attained the conviction that I had been exceedingly stupid, in yielding credulity to such traditionary practice as fill our surgical books.

It is now ten years since this book was published, and the great extent of its circulation has furnished the author with a vast experience, in addition to a very extensive practical acquaintance with the subject, during fifteen years' surgi-

cal practice preceding its publication. About six years since, after eight editions of the book had proved my full assent to all the cautions expressed in the two chapters on stricture (which I have left unaltered, because I think they will lend force to this appendix, and guard the surgical dogmatist against too great devotion to authority,) I was mortified by the announcement of a patient I had failed to cure, that he had been to Edinburgh, and had his stricture incised by Mr. Syme, and after a very few times passage of the largest sized bougie, he was permitted to return home, perfectly cured. Now, this gentleman's stricture could be readily dilated, and it had repeatedly been done by myself, so as to make him comfortable for weeks; but the least change of temperature, or irregularity of diet, would bring it on again as bad as before; and yet it was evidently not spasmodic, because it could only be dilated by the usual process of the bougie; anodynes had no effect whatever; nor would it disappear again, under two or three weeks dilation; in short, it was, as all such cases are, a perfect nuisance to the patient and the surgeon.

Here was a case which every practical surgeon would have pronounced an unwarrantable one for the operation; and yet, it was incised byMr. Syme, and that on the second visit, and then speedily cured by dilation! I did not lose this experience, the reader may be sure: but as I was still laboring under all the surgical learning of half a century of authors, I determined to find the *reason* of this cure, and to convince myself beforehand, whether I could apply such bold treatment in similar cases with prospects of similar results. I had often incised permanent strictures with more or less benefit, but these were so severe as to admit of no doubt as it regarded the propriety of such a course of practice.

When a man can only pass his urine drop by drop, for months together, and it is impossible to pass a bougie at all, there is certainly no other course to be adopted, than to cut carefully through the stricture, and then, keeping the patient on his back, to heal up the incision over the catheter. In the

case of my patient, Mr. Syme's incision had evidently cured the disposition to contract, for the patient had no further trouble, though he took no special precautions of diet or clothing, other than before he went to Edinburgh. Mr. Syme incised the stricture in his peculiar way; he passed a delicate grooved probe through the natural opening of the penis, and carried it through the stricture; then piercing the skin with a very delicate knife, he passed its point into the groove of the probe, and thus divided the stricture in one place only—on the lower side of the urethra, of course, as that is the place where the edge of his knife would come. The wound healed up readily, and the patient was cured by a few passages of the bougie.

Now, let us consider this case. The stricture, after Mr. Syme's incision, was in all respects, as it was before, with the exception of that single cut. What had this cut done? Why, it had divided the lining or mucous membrane of the urethra, and the *contractile* coat outside, and surrounding it. That is all; and what else? Why, the cut immediately healed up again, and became just as it was before! Not so fast, reader; —it left a cicatrix, or as people call it, an eschar, running its whole length, and this, it has been said, will always, of itself, contract any part of the body where it occurs. Here come the "authorities" again, to cripple our practice.

The "*invariable*" rule only applies to the outer skin of our bodies; not to the *mucous linings*.

But there is more reasoning to be done here; whatever the immediate mode of action that induces the contraction of this part after exposure to cold, irregularity of diet, or a debauch,—and renders the interference of the surgeon necessary to procure a passage of urine—I say, whatever its mode of action may be, the cause acts upon the entire mucous lining of the urethra, all round the bore of the stricture, and the contractile part outside of it. This is evidently interrupted by Mr. Syme's process. Stricture, the reader will remember, is always owing to irritability; a spot in some portion of the

urethra becomes more inflamed than the rest, as in clap, and contracts; or the person receives an injury by a fall on the edge of a board, striking on the urethra, which leaves the part contracted, and opposing the free passage of urine. Now, please to remember, the urine is always an irritating fluid, and the lining membrane of the urethra is supplied by nature with a great number of little *glands* that throw out mucus to sheath it, and protect it from the urine, and allow it to pass rapidly over its surface, and be thrown out of the body. If any portion of the passage be contracted in its diameter, the urine accumulates behind the contracted part or stricture, and irritates it by its acrid properties; it stays longer in contact with the strictured part as a matter of course. While it is seeking to pass the strictured part of the passage, the bladder becomes irritable, either from the quantity or acrid quality of the urine, and contracts spasmodically, in order to force it through the stricture; this reacts in the same spasmodic way by means of the contractile coat of the urethra which lies immediately next the mucous membrane, and thus the attack goes on, till the surgeon, either by half-poisoning the patient with opium, or other narcotics, and parboiling him, and wilting him in a warm bath, succeeds in passing through the stricture the smallest bougie, or the patient without it, passes the smallest possible stream of water.

All this, it will be remembered, will probably re-occur on the first occasion of a debauch, or taking cold, or even on using some indigestible food: wet feet is a frequent cause. Meanwhile, the patient is deprived of all the privileges of manhood, and is loathsome to himself and those around him: either his urine is passing from him drop by drop, or it is being absorbed and thrown out of his skin, scenting the atmosphere of the apartment, and rendering him an unacceptable companion to all.

Although recent cases of stricture are often cured by us, particularly if the patient will consent to lead a rational life, still they far oftener pass into extreme irritability and obsti-

nacy, and finally demand the measures enumerated in the chapter on the cure of strictures.

We are now convinced from a very large experience of Mr. Syme's practice, that incisions of the mucous membrane alone will interrupt this process of irritability and congestion, and cure the stricture; we will explain our views as to the rationale.

There can be no possible propriety in any mode of treatment or in any operation for stricture, which does not leave the contracted portion of the urethra in a state *less irritable* than it was when it compelled the patient to seek surgical aid. This irritable state shows itself by *action:* and that action is the spasmodic contraction of the entire circle of the mucous membrane lining the stricture; it has its own reason for contracting, and it obeys it; although that obedience evinces disease; *it is the law of the disease.* Now this contraction requires the continuous action of a little circle of the contractile portion of the urethra, every fibre of which is essential to the manifestation of the disease; *the incision interrupts this action:* although the cut part immediately unites again, still the circular fibres have been interrupted—and, when the cicatrix forms, it is a new and more recently organized substance, and one not controlled by the same law as the original fibre, which was obliged, by virtue of its organization and inflamed condition, to contract. This is the simple explanation, and no doubt it will be satisfactory to the thoughtful and timid practitioner.

The fact that severe and impervious cases of stricture, such as we have hitherto been accustomed to incise, have been observed to lose their irritability for a long time, if not for good, after the operation, and to become entirely manageable by the patient himself, ought to have given surgeons a hint to incise them long before Mr. Syme's proposed it: thus it is, however, and thus it ever will be; pride of mere learning (a very worthless thing without reason) and indolence, will keep men from the most admirably useful discoveries: and, when saga-

cious men really discover a great truth, there will always be some old fogies ready to thrust the "authorities" before their faces, and to try to frighten them away from thought.

After I had convinced myself of the rationale of Mr. Syme's method, I drew upon my mechanical habits for an instrument sufficiently delicate to incise the stricture, without puncturing the skin. We had long possessed various contrivances for the purpose, such as concealed knives—that could be thrust from the end of a bougie, as described in the chapter on strictures—but these were neither accurate nor delicate enough to incise the mucous membrane alone; for I resolved to test whether this alone was not sufficient in all cases that were not of long standing, or such as were marked by their irritability chiefly. After many trials, I succeeded in getting a very admirable one made by Tiemann, of Chatham street, who always can, if he will (but who, unfortunately, seldom wills), make excellent cutlery.

This instrument is not much thicker than a common knitting needle; it will pass through the smallest stricture, and, by screwing up a style that passes through it, a small knife is raised at any required angle, with the shaft. As the urethra is elastic, in all cases where the stricture is not permanent and hardened, I have found that full one quarter of an inch will only incise the mucous membrane alone; at least, I judge this to be the case, from the little disturbance and the few drops of blood which appear. I often make the incisions on two sides, by closing the blade, and then passing it again through the stricture, turning it round, so as to present the blade on the opposite side, and then screwing it open again; even when I have done it, as in a few instances, on three sides, there is little or no pain or disturbance—and, after the first urine has been passed, the patient often experiences the greatest relief, even before a bougie has been passed at all. No doubt this is owing to the interruption of the morbid action *encircling* the stricture, as well as to the depletion by the loss of blood from the part; for, doubtless, a

considerably larger amount than we see immediately after the incision is made, is passed off by the urine.

I have now used this instrument in a great number of cases, and find that we have been entirely deceived in our views of the serious character and utility of the incision of stricture. Mr. Syme's method of external puncture, I conceive, however, to be quite unnecessary; not only because it is a much more complicated and serious measure, but more especially as it requires the patient to lie on his back for several days, and the presence of the catheter for the urine to pass off; this is, undoubtedly, unnecessary, and, therefore, while I cannot forbear expressing my obligations to this distinguished surgeon, I hope I may claim some slight merit for the suggestions, and the few thoughts I have advanced for their guidance in the application of this great *principle* in the treatment of strictures, for such I am satisfied it will prove to be. Most of my patients have been sent by those who have experienced in their own persons the benefits of the treatment; and I should be mortified if this publication should fail in inducing every practical surgeon to adopt it without the slightest fear; it only requires that tact and delicacy which every practical man possesses: if he will attend to the structure of the part, its capacity of resistance, and the simple mechanism of the instrument, his first attempt in its use will be as successful as any other man's: there is nothing to be feared, and nothing wanting but common sense, in its use.

CIRCUMCISION—ITS REAL OBJECT—A NEW METHOD OF CURING SEMINAL WEAKNESS.

The great number of cases of seminal debility, accompanied by nocturnal or diurnal emissions, will compel the practical surgeon to look out for every possible cause that tends to produce so baneful a result. In thus expressing myself, I do not allude to those perfectly healthful emissions that occur in athletic young men who are wise enough to be continent, nor yet to the acknowledged victim of self-abuse; but I think that every humane and philosophical man, will endeavor to discover every cause that can possibly operate to produce that frequent and prostrating irritability of the seminal apparatus, that is unfortunately so common in this country. It has been the fashion of late, for some well-meaning men, whose opportunities of surgical observation are limited to some rural district, to decry such honest instruction as several very good writers on Hygiene have given in popular treatises, and to allege that it was done from interested motives only. It would not be difficult to circumscribe all action, physical or moral, in such a contracted category: but I apprehend that the motives of Moses will require no defence of mine, any more than the lawgiver would the instructions now given for the performance of an operation unwisely neglected by many Christian parents, when its necessity ought to be evident, from the frequent deformity of their offspring in this part of the body. The Jewish people were wiser; and in making the shortening of the prepuce or foreskin a religious ceremony, they ensured a great hygienic result.

Perfect ablution, and the free access of the air to the deli-

cate tissue covering the glans penis, will do more to preserve young men from specific diseases and seminal debility, than all the morality they will imbibe from those well-meaning but short-sighted people, who oppose popular physiological books, in a lifetime.

Excessive morbid irritability, which will not allow the genital organs to be touched without producing prurient feelings, is almost always present in those persons who are unable to denude the glans by slight pressure with the fingers, and I have observed them to be liable to frequent nocturnal emissions. It is evident to common sense, that where cool air and soap and water can act freely on the part, not only the liability to venereal poisons is lessened, but the healthful tone of the part is more likely to be preserved; the proper growth and expansion of the organ is so plainly checked by it, that the proportions of those who labor under the deformity of "phymosis," are actually infantile, and they often seek the aid of the surgeon merely from mortified pride.

No method for the performance of this operation can possibly compare in excellence with that practiced by the Jews; and I always adopt it when called on to operate on children: it consists in excising the redundant skin, in a slanting manner, equal to the obliquity of the glans, which is completely protected, and the part to be excised presented to the edge of the knife, by drawing it forward, and holding it firmly between the blades of a forceps; after the excision, the mucous membrane, from which the outer skin shrinks considerably, is folded over to meet it; and the parts soon unite and leave the "glans" denuded for life, ensuring cleanliness, and preventing the unnatural moisture of the part, and its consequent irritability.

But this method is too formidable for most people to submit to, when the organ has attained a larger size. Accordingly, the French have adopted the following plan: passing a small grooved director through the narrow opening, and under the superior part of the prepuce or foreskin, and carry-

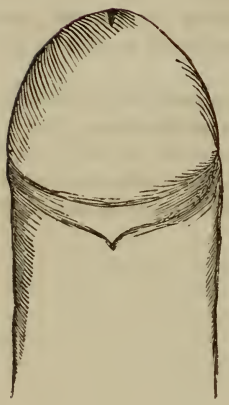
ing it just as high as the glans, with a very sharp-pointed knife, guided by the grooved director, the surgeon pierces the foreskin, and completely divides it, cutting towards himself; there may be now quite a smart bleeding, which will soon stop without securing any vessels. A singular result always follows, which is difficult to believe till you have seen it; but as it depends upon an organic law inherent in the divided skin, it always follows; we allude to the fact, that when the single straight cut is made through the foreskin, as shown in the first figure, it instantly assumes, by the peculiar contraction of the skin, a transverse position, as shown in the second plate, partially encircling the penis, and ensuring the retraction of the prepuce just where it ought to be, as in the natural formation, where it is so short as to leave the glans exposed; three separate stitches with a cambric needle and thread should then be passed through both cut edges by the slightest hold, so as to approximate the delicate mucous membrane that lines the prepuce with the divided integument or outer skin of the penis, and no dressing whatever applied: if the patient remain quiet, and there be no bleeding, it will unite by adhesion as easily as a cut finger, and he is for ever clear of this ridiculous and infantile deformity. Under the most unfavorable circumstances, however, after a few days the cure is always complete—the irritability is removed, and the patient's proportions assume the size intended by Nature.

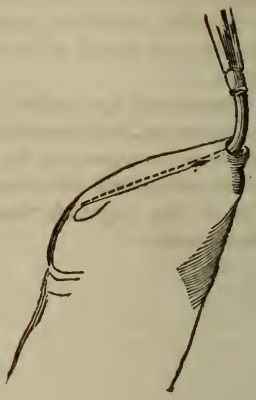
There is not a doubt on my mind, that there is an electrical law by which irritability of the glans penis, when constantly moistened by the contracted prepuce, as well as irritated by the foul secretions that are thrown out by the glands surrounding it, is propagated to the irritable vesicles and their outlets, that store the semen, and lead it into the urethra; hence, the seminal debility. I have cured many cases, on which cauterization, and diet, camphor, lupuline, and the cold douche had no effect, by this simple operation alone; nor, have I a doubt, its invigorating and hygienic effect was

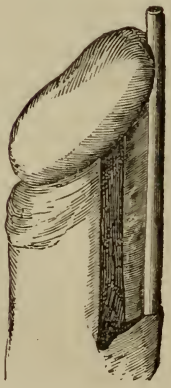
at the bottom of the law enforcing circumcision. We subjoin the two plates for the benefit of surgeons.

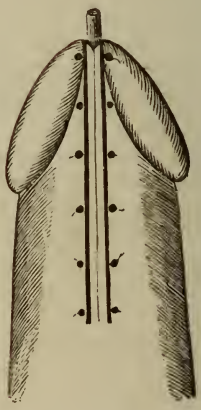
The first shows the deformity requiring the operation, and the director passed under the prepuce ready to receive the knife.

The second, the divided part, as it appears an instant after the operation, and before the insertion of the stitches; the cut has become transverse by the retraction of the skin of the penis pulling *back* the sides of it. The two plates at the bottom of this, page 276, relate to the next article on the abortive urethra.









ABORTIVE URETHRA: A NEW OPERATION.

THERE is an affection of a very remarkable character in which the natural opening of the urethra in the glans or end of the penis, does not exist; the child is born so; a mere hole on the under side of the urethra, sometimes half way down, being the abortive termination of that tube: this hole, however, usually exists in such cases, only half an inch from the end of the penis; and is the source of great mental distress to the unfortunate young man, as soon as he becomes aware of the proper natural formation. The abortive or unnatural opening, of course, answers the purpose of evacuating the urine; but the sexual act is often rendered unfruitful from the defect; always so, when the hole occurs half way down the organ, as is shown in the plate on page 277.

The operation alluded to in chapter eight, is not at all applicable to such a condition of the parts; as there is a constant tendency of the puncture to contract by the natural approximation of the parts; in short, that operation is only applicable to slight cases.

I have lately succeeded in restoring a very bad case to its natural state, in a fine young man, who sought my aid, from the West: the opening was full two inches from the proper ending in the glans penis; it was the source of the utmost anguish to the patient, as he was one of the finest specimens of American youth, and desirous of entering the state of marriage with a young woman, to whom he had been attached from infancy. I stated the doubt of success with the utmost candor to the patient, assuring him I had never known so bad a case successfully operated upon.

He had, however, imbibed such extraordinary ideas of my mechanical ability, and such assurance of success, that though I resolved to attempt to aid him, I did so with a painful conviction of failure.

This fear originated from the anticipated derangement of the parts, from the unavoidable erections in sleep tearing out the stitches, by which I intended to approximate the edges of the skin, which I should loosen on either side of the abortive urethra, and approximate its edges over the catheter, as shown in the subjoined plate, which is inserted for the benefit of surgeons. Dr. Sims, of this city, suggested to me his beautiful device for approximating the opening in the female parts between the bladder and vagina, an accident never cured by a correct surgical principle till done by that gentleman: his "clamp sutures" I believe to be the only means of carefully approximating the cut edges, and holding them in contact undisturbed during the unavoidable erections of the penis, before complete union could occur of the two flaps, as seen approximated in the plate.

The following were the steps of the operation:—With Mr. Arnott's mixture of two-thirds pounded ice and one-third salt, enclosed in a bag of gauze, I so chilled, in five minutes, the parts to be cut, that I made, without pain, two incisions through the skin a quarter of an inch from the central line dividing the penis, where there is a trace of the mucous membrane of what was designed to be the lining of the superior part of the urethra; these incisions extended from the glans to either side of the abortive opening of the urethra; I then dissected towards the central line of mucous membrane, and completely raised them from the body of the penis for the length required, leaving about a quarter of an inch of each side the central line, or that which lies under the bougie in the plate, untouched by the knife; then, allowing the part to recover completely from the chill, so as to see if any blood would ooze away, and wait till it was done, I passed a large bougie into the bladder and raised up the two flaps; ap-

proximating them over the bougie, I passed six delicate annealed silver wires, each wire previously knotted at one end, and the other passed through each of six holes in a strip of lead two inches long, and a line thick: the free ends were passed through the edges of each flap by means of holes made with a cataract needle, and then through similar holes equidistant and corresponding with those made in the first leaden strip, in another similar slip on the other side; then passing a drilled buck-shot over each free end of the wire, and bringing the edges of the flaps cut to cut, I squeezed each shot with a cutting pliers, and found the edges to meet beautifully. I kept the patient on his back for six days, but was obliged to withdraw the bougie on the fourth day, in consequence of the irritability of the part, notwithstanding the liberal use of morphine, with which he was kept continually dozing; I did not, however, allow him to pass his urine till the tenth day, drawing it off twice a day after I had withdrawn the larger one, by means of a small catheter. The necessity of removing the large one, which was essential as a means of ready passage for the urine, as well as a mould for the addition made to the existing portion of urethra in a very large penis, had been anticipated by me as the most likely thing to render the operation fruitless. The sutures were removed on the tenth day.

In a similar case, I should not let the large catheter remain over the third day; as the clamp suture keeps the parts so admirably together as to insure rapid union; let me caution the surgeon, however, not to trust the patient to pass his urine for ten days, as the irritation of the urine might cause inflammation.

The expressions of gratitude of this fine young man will ever be held in my remembrance; I consider the result, however, due entirely to Dr. J. Marion Sims, of this city, whose beautiful contrivance of the clamp suture enabled me to keep the parts together. The third and fourth plates, page 276, show the deformity, and the parts brought together with the catheter in the new passage.

THE OPERATIONS FOR VARICOCELE.

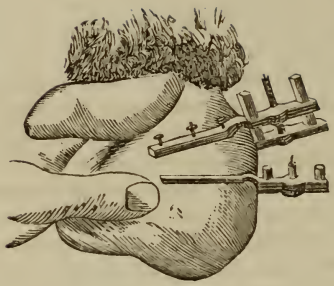
See Part Second, Chapter XII.

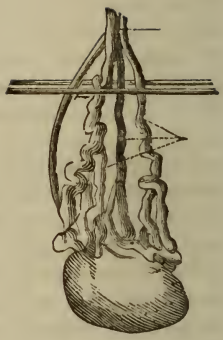
THERE are so many persons who object to cutting operations, as well as occasional trouble from bleeding under the skin in the loose tissue of the scrotum, that many surgeons entirely repudiate them for varicocele, and substitute compression of the veins and the ligature: the first is effected by two little oblong steel pads, which receive the enlarged veins between them, the surgeon having secured them in front of the spermatic duct and its artery, by means of his thumb and finger: a screw brings them together, passing through the ends of each, and just clearing the skin of the scrotum or purse for the testicles: this method will obliterate the veins in a few days, but it is quite painful, and ulcerates the skin, which is unavoidably compressed to reach the veins.

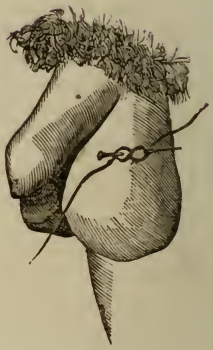
The second method consists of passing a long silver pin behind the group of enlarged veins, and then another in front of them, both entering and emerging at the holes made by the first. The reader will perceive, that turning the ends of these two pins between the fingers, will twist the enlarged vein, and shorten it, raising up the testicle; a few days effects the obliteration of the vein and its adhesion, so that it stays shortened and impervious: the pins are then withdrawn, and the person is cured. This is a safe and sure method.

Another plan is a very ingenious one, and amounts to the same thing as the ligature made by cutting through the skin, raising the veins, and then tying them: but it is rather more complicated and surgical in appearance: it consists in passing a double ligature *under* the veins, leaving a loop on one side;

then passing another double ligature through the loop and through the same hole in which it was brought out, in *front* of the veins and directly under the skin: making a similar loop come out of the opposite hole, and passing the tails of the first ligature through this second loop: drawing right and left the tails of each, will strangulate the enclosed veins; the cut will explain it better than we can: but it has no advantage over the common ligature, or what surgeons call the figure of eight ligature over the pin, which is shown by the last cut; it consists in passing a single pin under the veins, and then compressing them against the inner part of the skin, by twisting a thread, figure of eight fashion, from one end of the pin to the other, outside of the skin. I prefer to all the others here figured, the two wires; for they are both certain and manageable; at once obliterating the vein, and shortening the cord: moreover, if severe symptoms come on, it is easy to withdraw the wires: after three or four days, it may usually be considered successful.







LOSS OF VIRILITY IN YOUNG MARRIED PEOPLE—AN UNSUSPECTED CAUSE.

It is not to physical derangements only, that the extinction of passion is due; nor yet to the evil practices of youth. A man may be so fortunate as to be perfectly formed, and escape the pernicious influence of evil instruction at school he may marry happily; his blood may be pure, and his prospects bright, and yet from ignorance of a great law of Nature, he may, in a few years, find himself prostrated in all his manly energies, and his very soul become dead within him, whilst he may be utterly oblivious of the cause. I know of nothing more positive in its depressing influence upon the nerve power of our sex, than that insidious one, of a partial performance of the sexual act so common amongst the newly-married, after the birth of one or two children, for the purpose of preventing further increase of family. Tobacco, itself, has a less depressing influence; nor do I think that the associate vice of drunkenness, combined, would turn the scale in their favor, against this awful cause of the early decay of manhood: it certainly ranks ahead of self-abuse, because that vice commences in the very morning of existence, whilst nature is yet gaining power, and, before the anxieties of life commences their devastating inroads upon the nervous system. As I have only space in this appendix, to notice this master evil of one vicious system of society, I cannot enter into an explanation of the theory of its wretched consequences; indeed, I have no acceptable one to offer; the fact I know from extensive observation, and the most painful narratives of my patients; together with numerous letters of inquiry.

But why should it excite surprise? think for a moment on the consequences of such a check continually given to that act by which man demonstrates the possession of God's greatest gift, CREATIVE POWER! What an insult to Nature and Nature's God! To summon up a cold, calculating consideration, to quench the fire on that altar where man was commanded by God to prove his immortality! Yes, Creative Power is the best proof of the immortality of the soul! nor do I conceive it possible to practice the debasing custom alluded to, without man's whole moral nature being crippled long before the bodily powers succumb.

Those who consult the surgeon for the consequences of this vice, are usually of an order of mind very unlikely to investigate the validity of any assurance of its baneful consequences; because a man who has much physical or moral force would never long practice it, without making the discovery for himself: he would rarely proceed so long with the practice, as to require medical or surgical treatment to restore his lost power, Unfortunately for the prevention of this vile habit, there are very few medical men sufficiently well educated in physiology, to have given this subject any consideration adequate to its importance; and the commercial spirit of our people is but ill adapted to self-observation. A vast number of married men, by the time they have made the imagined necessary amount of wealth that will entitle them to rear a family, and supply it with all the contemptible requisitions of fashionable life, will find their bodily energies so crippled, that nothing but sickly and scrofulous beings will follow the feeble effort of expiring manhood: and fortunately for the next generation, dropsy in the head, or the summer diarrhœa, carries many of them off in infancy, and prevents the further propagation of such a miserable race.

When the victim of this vice presents himself to the surgeon, it is either for seminal debility, apparent when at stool, or else for a constant daily drain, without the excitement of, or with very little amorous emotion. It is quite useless to am-

plify the symptoms, in this appendix; most of those appertaining to self-abuse may be found on inquiry, and a still greater amount of despair, because, for the most part, the married victim has gone through that ordeal, previously. It is the consequences of that vice that usually incapacitates him from those manly resolves and that decision of character which, had he possessed them, would have rendered such a wretched and calculating conclusion as a desire to limit his offspring, unnecessary and repulsive to his feelings.

The surgical appliances calculated to benefit such cases, are, electricity and cauterization. Sometimes the patient may derive benefit from irritants applied to the spine, as low down as possible, and continually repeated; at the same time, Marshall Hall's mode of administering strychnine, a grain dissolved in an ounce of alcohol, and fifteen drops taken twice or thrice daily for several months, will benefit him. A long continued fish diet, will, by the stimulating and restorative properties of its phosphoric elements, assist the cure. The stupefying influence of tobacco must be fully acknowledged, for its directly prostrating influence on the genital system is powerful. Those methods which can prevent the production of offspring without this loathsome and disgusting practice, though not in accordance with Nature's plan, will certainly be attended with less prostrating results; but no man can entirely escape the consequences of avoiding the Divine command, on which his healthful existence depends.

APPENDIX

TO THE TENTH EDITION.

Abridged from a Lecture on the Pathology and Treatment of Stricture. Delivered to his private Surgical Class, in 1866, *by Edward H. Dixon, M. D., Editor of* The Scalpel, *and Operating and Consulting Surgeon,* 42 *Fifth Avenue.*

Gentlemen:

Since the discovery of Mr. Syme, of Edinburgh, that stricture of the urethra is only permanently curable by incision, surgeons have been obliged to scrutinize one of their best established and most cherished dogmas; one that was sanctioned by the greatest authorities, and apparently proved to be true by centuries of professional scrutiny. Indeed, it had become an aphorism; and the surgical neophyte would have been condemned to another year of study, if he did not know it, when asked by his "tormentor," whilst "undergoing his first great sweat in the green-room." It was this: "All wounds, when healed, necessarily *contract* the parts they unite." In popular phraseology, "Scars shrink." Now, all practical surgeons well know that this applies only to ulcerated wounds where there is much loss of substance, and especially to the skin, as in burns; it is certain that the aphorism does not apply to incisions below the skin; it surely does not to the numerous operations now performed for deformities produced by contracted muscles and tendons, as wry neck, clubbed foot, contracted joints, etc., where incisions are freely made under

the skin. Surgeons have, for centuries, therefore, applied a rule applicable to ulcerations only, to simple incisions; and the consequence has been, the failure to cure two of the most distressing diseases to which we are subject, namely: "Stricture of the urethra, and stricture of the uterus." The former is but too well known in our own sex, and the latter, only unsuspected to exist by reason of absolute ignorance of the nature of her own structure and functions, by those women afflicted with painful menstruation in early life, and unfruitfulness when married. She would be as frequently the subject of stricture of the urethra as man, were it not rendered almost impossible by the shortness of the passage, making it easily and constantly dilatable by the urine. The passage from the cavity of the uterus, in its unimpregnated state, only requiring the percolation of the menstrual fluid—as it were, drop by drop—and being very subject to ulceration and contraction, besides having its calibre, which will hardly admit a pin, in its natural condition, continually contracted by congestion of the substance of the neck of the womb, through which it passes—is liable to stricture; indeed, nine women out of ten, who labor under difficult or painful menstruation, and are unfruitful, have this disease. But it is truly astonishing that physicians still persist in treating both these diseases with medicines. They belong exclusively to the surgeon, and can only be cured by local and instrumental treatment. In both, there is an alteration of structure, which, when the diseases have existed for some time, has become permanent. Stricture is a thickening of the natural tissues lining the respective passages from the bladder and the womb, making them smaller than natural. This thickening is the result of inflammation; in the urethra, it is usually caused by Gonorrhea or Clap; not always, however, for there are other causes of inflammation; long-continued self-abuse may cause it. It is only necessary to apply irritation to the urethra, and to continue that irritation long enough, for inflammation and thickening to occur in the lining or mucous membrane, and to

extended far enough beneath it to produce "stricture." It may originate from mechanical injury. We have had very bad cases of stricture from kicks between the legs ; also from falling astride of a rail ; and in one instance the tail of a wagon-board, astride of which a man alighted suddenly. The use of that shockingly dangerous instrument for cauterizing the openings of the seminal ducts, (Lallemand's Port Caustique,) has made a few of the worst strictures we have seen. As these result from the contraction of an irregular ulcer of indefinite extent, produced by the caustic, the cicatrix forms a stricture of no describable shape ; the passage being so distorted, that its natural continuity can never be restored ; the only resource of the surgeon is, to cut through it in a curved line, and form a new passage. We have also had several severe strictures under treatment from local inflammation, caused by the continued passage of bougies by the patients themselves, when pursuing the old method of dilating the stricture with bougies.

The barbarous method of forcing through a stricture with a conical bougie, and piercing it, with a pointed one, will often greatly increase it ; indeed, it is impossible, at this moment, to recall an accident, or evil result of practice, that has not afforded us one or many examples of stricture.

Strictures vary in degree, from the twelfth of an inch to two inches in length : we have had examples of more than three inches of the urethra obstructed by one or more strictures of almost cartilaginous hardness. They are rarely at the opening or mouth ; most frequently they are situated at the fourth or fifth inch of the urethra, when that passage is seven inches in length ; it is not usually longer : stricture rarely exists at the neck of the bladder

SYMPTOMS.

Men are so unaccustomed to observe correctly their own feelings, and to trace out the causes that interrupt that harmony of action which constitutes health, that it is quite

difficult to convince them of the existence of any other symptoms of stricture, than such palpable ones as the usual persistent gleet, or white discharge (which is always the first symptom of stricture), a great diminution of the stream, or occasional absolute obstruction to the passage of the urine. Now one would suppose that it could hardly be possible to overlook a diminished stream, amounting to one half what it should be in health; but that is a matter by no means easy to determine; we have only to reflect, that if an ordinary lead pipe, of a similar calibre, delivering a stream of its own size, should receive a blow, causing a dent that should diminish it by one half that calibre, it would still deliver a stream in appearance quite as large as before; but that stream would not be round and continuous, nor could it be projected as far from the orifice of the pipe as it would have been before the dent was made; it would be spiral, or more or less like a cork-screw, scattering at the orifice, and it would fall nearer the opening of the pipe. The patient rarely observes this, nor the increased frequency of the desire to pass his urine; both these symptoms are so gradual in their approach, that they are rarely noticed till so marked as to compel attention. I never yet heard a man say he could determine when he first believed the stream of urine was essentially diminished. When asked if he has noticed any diminution, the patient will invariably say No—often when a number four bougie will pass with difficulty. Still less will he believe that nervous symptoms, palpitations, chills, headache, lassitude, and increasing unwillingness and want of mental force in all the business of life, depended upon this morbid irritability of the urethra. That conduit is intended by nature for the *rapid* passage of the urine, which is often very irritating, because of the redundant acid and alkaline secretions from the blood; the urethra being the greatest waste-gate of the body. The urine is poisonous; if taken into the blood extensively, or entirely, as in cases where none is secreted by the kidneys, the patient dies, as surgeons say, of Uræmia; he becomes stupid and dies—blood-

poisoned by the urea. Now when the passage is greatly narrowed by stricture from any cause whatever, of course the force of the bladder cannot act as much on the portion of urine beyond the stricture, as it can on that nearest the bladder; therefore the nearest portion of the urethra is distended, often to double and triple the size of the more distant portion. This distended part becomes irritable and sore from the presence of the acrid urine, and its lining membrane no longer remains smooth, nor does it secrete the healthful mucus provided by nature to lubricate it, and cause it to tolerate the urine; the discharge becomes thick and opaque; and glues the lips of the meatus or opening of the urethra; this is especially to be observed in the morning because no urine has been passed during the night to wash it away. This sore bag or sack, irritates the whole nervous system, and causes general constitutional symptoms, as above enumerated, chills, etc. In process of time, the stricture increases, by the thickening of its wall, caused by the constant inflammation, till the urine is only permitted to pass in a very small stream, or drop by drop. Cold feet, general chill, or a debauch with wine or women, throw the blood from the surface into the membrane lining the stricture, and it swells till the urethra is quite closed, and there is absolute retention of urine.

It is not advisable, nor indeed, possible, within the limits of a short lecture, to enumerate the variety of remedies administered by physicians, to cause the urine to flow. They are mostly inoperative and unreliable. Warmth in bed, increased by bricks and bottles of hot water, is the only reliable method of re-opening the passage; if there be spasmodic efforts to pass the urine, and the smallest catheter can not pass, by skillful and gentle efforts, no time should be lost. Ether should be immediately inhaled—from a funnel-shaped napkin, the ether being applied by means of a sponge the size of an egg, placed in the funnel-point of the napkin, the patient's nose being enclosed by its open mouth, raising it every few seconds to admit the air—This is perfectly scientific and safe, and should never be

omitted. It is quite unnecessary to wait for the doctor or surgeon; any person of common intelligence should at once proceed to do it, without hesitation, and what is more, as soon as the patient is insensible, he should, without the least fear, attempt very slowly and gently to pass a small number four catheter of gum elastic. He can do no possible harm, and may save the poor victim the greatest anguish, and death from a bursted bladder. I can not conceive how it is, that people who call themselves men, do not instruct their patients, especially in the country, where it is often difficult to get medical aid, in this simple and necessary act. No man worthy the name would fail to do it, nor should instruction in the use of ether any longer be withheld in our public schools. It is the most effectual remedy for spasmodic diseases known to man. When our profession elevate their code of ethics to the height and adapt it to the breadth of the requirements of humanity, then they will have less cause to complain of the ignorance and ingratitude of their patients.

If these efforts fail in enabling the patient to pass his urine, no further time must be lost. The surgeon (not the physician) must be called. We will endeavor to illustrate why we say this, by a few type-cases. It is customary, in all the authors on Stricture we have ever read, not only to publish a great number of cases, but to give all the receipts, and the regimen adopted in each case, and to dismiss the patient generally as "cured" by the same. We have no recollection of having "cured" a single case, in thirty-five years' experience, by the method of dilating with bougies; whenever the patient has not left us in disgust because we demanded payment of a bill, or because his disease returned after a little relief by dilating the stricture, keeping his feet warm, and ceasing his intemperance and other debauchery, he has either abandoned us because he was promised a cure by medicine, or he has abandoned himself in despair at the result of all treatment. It is only since we have adopted the treatment of incision by the Urethrotome, that we have derived any satisfactory result;

we know that it is the *action* of the nerves and minute blood-vessels, that *made* the stricture, by keeping alive the irritation and inflammation, thus *thickening* the membrane lining the urethra, and gradually closing it up.

When you shall have read the authors on stricture for the past fifty years, you will learn that it is not extravagant to say that their treatment for its radical cure is entirely worthless and absurd. Mr. Syme, of Edinburgh, within the past fifteen years has changed all our ideas, and created the therapeutics of stricture. The canny old Scot has left us nowhere. *Palmam qui meruit* is our motto.

EXAMPLES OF STRICTURE.

Case First.—Complete obstruction, of two days duration, from irritable stricture. Entering my office some time after the evening hour, I found several persons in waiting; recognizing an interesting case in which I had divided a stricture the previous week, I was making some inquiries regarding its progress, when a groan reached my ears, from a young man who had come attended by his physician. I immediately noticed he had that peculiar expression of countenance that indicates what accoucheurs call a "bearing-down," or labor pain, such as that which accompanies the commencement of the last or expulsive stage of parturition. The bladder occupies the same region, and is governed by nerves from the same part of the spinal marrow that the womb is; and the effort to expel the urine retained for two days, will produce precisely, so far as the face and abdominal muscles are concerned, the *action* of parturition; without relief, this would go on until the bladder burst, when death would soon follow from the effusion of urine, causing inflammation in the abdomen. This young man was about thirty years of age. He had had gonorrhea or clap for a long while, several years before: yet he was married since, and had one child. He presented me a

note from a friend, to this effect: "This man has a bad stricture. We, (two gentlemen, his friends) have been at him, off and on, for two days; we can not pass the smallest bougie or catheter. Try what you can do with your new instrument." Although this case was sent to me so frankly, most surgeons will agree with me, that I had no cause to be thankful for having thus thrust upon me the awful responsibility of a man who had been unsuccessfully treated for two days, and actually had pains on him preparatory to the bursting of his bladder! I am obliged to state the case in this way, to show how far gentlemen will deem themselves justifiable in proceeding, where three have been in consultation, and where it is only human nature to suppose that one, at least, considers himself competent, perhaps skillful. The reader will perceive, that in the event of failure in relieving the man by passing the catheter, I should have been obliged to operate on him at once in my own house, or send him to my hospital. I say candidly, that I believe this latter was the intention, and I think it but fair to say to gentlemen who meditate such acts of kindness, I shall not be thankful for their fruition. The medical gentleman who came with the patient, was a hospital pupil of Mr. Syme, of Edinburgh. Mr. Syme is the great advocate of the incision of stricture. On inquiring whether he had had any medical treatment, I was told that all that had been practicable had been done, except bleeding and the warm bath. This would have been the treatment, according to all precedent and authority, when I commenced practice, thirty-five years ago, and it would have relieved him, after it had half killed and prostrated him for weeks, only to be renewed on the next occurence of cold feet, or slight debauch. My second question, "Have you had ether or chloroform?" was answered in the negative. Seeing that the whole evil depended upon spasmodic action of the closing muscle of the bladder—a circular muscular tissue, that closes the outlet or neck of the bladder like a ribbon, and that this spasm was excited by the stricture, rendered more irritable by the unsuccessful use of the instruments in

so many hands—"drawing blood freely," as I was told—I made no further effort till I had placed the patient under the full action of chloroform; I prefer ether, but its slowness would not suit the urgency of the case; I feared the bursting of the bladder. As soon as he was unconscious, I took a number six catheter, and passed it without the least difficulty, the urine issuing with such force as to pass over my shoulder, as I was kneeling on the floor by the side of the couch on which he lay. His relief was immediate and complete. I passed a number ten catheter of gum elastic, and secured it with a bandage, the doctor suggesting it, and I being unwilling to risk the chance of his passing urine during the night, as he lived in Brooklyn. Having commenced this case, I was obliged, in justice, to finish it, as it created two enemies, out of the three gentlemen concerned in it—how justly, you may judge. The oldest of the three now laughs, and cites it as a case of their own stupidity; but he has retired, and being a man of the world, can afford it.

The patient could not endure the presence of the catheter longer than the next morning, which was what we both anticipated. The reader can judge of my surprise, when I again found him the next evening, this time unattended, in my office, unable to pass a drop of urine, the same efforts having been made by two of the gentlemen, unsuccessfuly, with no chloroform, to draw off the urine. The same treatment as before, was again successful. I sent him home with the catheter in his possession, and positive directions to stay in bed with all the clothing that he could pile on, warm bricks to his feet, and a teaspoonful of sweet spirits of nitre in a half-tumbler of flaxseed tea every two hours; if that would not answer, a dessertspoonful of laudanum in a wine-glass of starch, warm, to be thrown up the bowel; in an hour the catheter number four to be gently tried *under the cover*, so as to avoid chill. If that did not answer, chloroform to be used, and number six tried, as I had done, telling him frankly that he never would be cured, but constantly liable to just such attacks from cold feet, and

general chills, to which he was constantly liable from his calling—stoking up and supplying an engine—till the morbid action was for ever interrupted by dividing the stricture with the Urethrotome. I desired him to give my opinion frankly to the gentlemen, and not be unduly influenced by fear. He went home and required no further use of the catheter, or any treatment except the warmth in bed and the spirits of nitre, the stream, however, being smaller than before. The two gentlemen opposed the operation, assuring him that dilating the stricture would cure it, and the operation was unnecessary and unwarrantable. He had now lost all confidence in his advisers; and at his request, a fortnight after his last visit, I divided the stricture in the presence of Dr. Henry, of this city. The other gentlemen were not invited, because they did not approve of the operation. The patient was etherized, although it is not nceessary; there is no pain in the internal incision, and any case in which the smallest bougie can barely enter the stricture for a single line, can be divided, generally at the first attempt. He, however, desired the ether, and it was given in anticipation of spasms, as he had suffered so much. Immediately we placed a number twelve catheter in the bladder, the full size of the urethra. Not a bad symptom followed. He was not confined an hour in bed, and in a week he resumed his employment, being directed to keep dry feet, body warm, live temperately, and introduce the catheter once a week for a few months. We have not seen him for nearly a year, but learn from several patients he has sent us, that he is in perfect health.

This case illustrates a vast number; it is by far the most frequent one we see; its beginning, it did not even arrest the notice of the patient; like a vast majority of cases, it commenced in an obstinate clap; that was the irritation that produced the inflammation, which finally made the stricture, in its most frequent place, an inch and a half from the bladder. The patient was perfectly temperate, but liable to chills and cold feet, the greatest exciting causes of congestion and swelling of the

blood-vessels that form the lining membrane of the urethra. A chill after great exertion, producing a sweat, occurred; spasm of the muscles followed; mechanical irritation was added from too long continued efforts to overcome the stricture by bougies; no chloroform, the great relaxer of spasms, was used; and nothing but relief could follow, even from that, had it been used; there could be no cure, till the morbid condition was interrupted by dividing the stricture. How far it illustrates our ideas of the evil results of medical treatment, or of medical consultations, we leave others to determine. The patient has given leave to publish his case. He is in the employ of Mr Secor, ship-builder, of South-Brooklyn.

Case Second.—Stricture by a bruise received by falling from a height on the edge of the tail of a wagon-box: A. W. S. Shippen, Cameron County, Pa., a young man of twenty-four, iron machinist. During some agricultural pursuit, this young man fell and alighted astride of the tail-board of a wagon, bruising the urethra and inducing the usual symptoms of stricture: gradual diminution of the stream, first, spiral form, and finally scattering of the stream of urine, often threatened with complete suppression from checked perspiration, during his laborious business. He was several years in this condition, but contemplating marriage, and being a very conscientious and intelligent man, concluded to seek surgical advice. My journal, The Scalpel, having fallen into his hands, he was induced to seek my aid; a friend followed him to the train, and earnestly dissuading him from his rash conclusion, assuring him he would meet his death from so awful a man, and that the New York surgeons in general were nothing but executioners. I found the stricture within a couple of inches of the bladder, or just where a person would alight in falling astride of a board; a number two steel sound would pass with difficulty. This, however, is ample for the Urethrotome. I could have divided at once, but yielded to his desire to have a little more opportunity to study his executioner's habits. In about a week I used the Urethrotome suc-

cessfully, giving so little pain that he laughed at his apprehensions. In an other week he returned to his home, with several number twelve bougies, which he was directed to use occasionally. I gave him a stock, because I believe strictures arising from kicks, or bruises, must become ulcerated when the injury was inflicted, and that the urethra can only be preserved through the contracted cicatrix, in a very irregular form. Our incision, therefore, forms a new passage in one or two points of its course, not enlarging the old simply. Therefore it will take longer to re-establish it of a full size, and allow the whole to be covered by a newly-formed mucous membrane. Nature does not yield so fast in irregular ulceration. These, we have explained, contract, because they ulcerate. Such cases, are, however, rare: we have had several from kicks—this one is a type of most cases of stricture from a bruise.

CASE THIRD.—A young man who had indulged during several years in self-abuse, became so exhausted from seminal emissions, that he applied to a very notorious operator of this city for treatment. He proposed cauterization with Lallemand's instrument. This was repeated no less than twelve times, at intervals of a week. I can only suppose, that the instrument was used for deception, and for nine or ten times either very slightly, or not at all charged with caustic, as I can not conceive the possibility of its having been used weekly; if charged and used in the manner directed by Lallemand, in his book—the urethra would have been ulcerated and completely closed by the fifth time. I have never myself used the instrument of Lallemand, though I have for years followed his book as a guide in such cases. We owe him all that we really know of the principle of cauterization, and although I have seen the instrument invented by myself, described in the thirty-sixth volume of the *Boston Medical and Surgical Journal*, extolled by Dr. Gross, in his great work on *Diseases of the Urinary Organs*, as "the only one proper to be used," I am obliged to say that I deem them both dangerous: Lallemand's, because it is quite impossible to use it without injuring the urethra; my

own, because it frequently catches and tears the mucous membrane in the opening through which the caustic is applied, when the charged caustic-holder is drawn back, previous to withdrawing the instrument. I would gladly withdraw it from the shops if I could, but such things, when given to the instrument-makers, are beyond control; they will make whatever will sell; surgeons of limited experience will use whatever they think promises well; and the patient suffers. I now use a much simpler one, which I will presently describe.

I have never seen a worse case of stricture than this one. All the trouble originated after the tenth application; the twelfth completed the stricture. The patient passed blood and matter for several weeks, he urinated with great pain, and the only reason, in my opinion, why he did not have an opening from ulceration in the urethra, and a urinary fistula from the violence of the inflamation, was simply because the injury inflicted was at the neck of the bladder. Had there been a space of two inches, as in many cases of stricture from clap, the pressure of the urine would have caused ulceration in the urethra, and the patient would have had fistulous opening between his legs, or, as surgeons say, in the perinaeum.

I could in this case introduce no instrument whatever; the contraction was so extensive and so dense, that I was obliged to use the Urethrotome, without the director, which, in ordinary cases, enters the stricture and acts as an *avant courrier*. I used the instrument that is made with the full curve of the urethra in its undiseased state, and projected the blade line by line. The stricture was a full inch in length. I succeeded in cutting through it, after ten or twelve projections of the blade; as soon as the blade met no more resistance, I passed a number ten catheter into the bladder. The patient remained a fortnight, by which time I had taught him to pass the gum elastic catheter with ease. He has since married, and is apparently contented. He has, however, no children, and the seat of the injury, involving the seminal ducts, I think it probable he is impotent. I am inclined to think the observations made in

my work on Diseases of the Sexual System, were richly merited by this dangerous instrument. How far any instrument would be safe in the hands of some of our practitioners, I leave my professional brethren to judge, when I was told by a celebrated Professor he used it every fourth day! Caustic is certainly a very powerful agent, and although the practical surgeon can not possibly dispense with it in an infinite variety of sluggish and irritable ulcers, and in passive spermatorrhea, it must always be used with great care; in the latter disease *never* nearer than a fortnight between the applications, and never applied over four times to any one case. I now use the simple catheter, with its point cut off, and a pyriform-headed gutta-percha bougie inclosed in it. The caustic is attached to one inch of the bougie, directly behind the head, by means of melted wax painted lightly over that one inch; it must first be powdered very finely, and the waxed end of the bougie rolled round in a fold of paper containing the caustic, and pressed on the wax by the thumb and forefinger. When properly charged, the caustic should show the bougie, or rather the wax, distinctly through it: it should only be barely whitened with the caustic. Immediately before it is passed into the urethra, the patient should pass his last drop of water from the bladder. If he does not do this with absolute thoroughness, the urine will enter the catheter and completely neutralize the caustic, rendering that application perfectly useless; indeed, it will be quite useless, should any urine issue from the catheter, to draw it back and expose the bougie to the seminal ducts, because there will be no caustic on it.—Wait, in such an event, for three days, and direct the patient to use more care in passing his urine.

It will sometimes happen, however, that there is a state of partial paralysis of the bladder, which renders it impossible to pass all the urine; it will dribble for some time after the patient readjusts his clothing. The urethra will also become relaxed and baggy for a couple of inches from the neck of the bladder, forming a small bladder, as it were, out of the

urethra. This will often allow the stylet to be projected from the catheter, and the surgeon will feel no resistance; the instrument will often indeed pass directly into the bladder, with no resistance from the sphincter or closing muscle, as is usual in healthy people. These are the worst kind of cases and will admit of a much freer use of the caustic. Strychnine is useful in such cases; but this demands the careful attendance of the surgeon; it would, perhaps, lead to mischief if we were to give any directions for its use. We take occasion to caution the surgeon in the use of our truncated caustic catheter, as now sold in the shops. If the stylet be made of whalebone, that substance becomes very brittle, if kept in a cold place; it is likewise eaten by a peculiar insect. It would be a sad accident were the end to be broken off in the urethra or bladder. Mr. Tiemann now makes them of gutta-percha, which is perfectly safe, and far more flexible and easily introduced into the catheter.

This instrument is now, I believe, more extensively used than any other caustic catheter. It was devised immediately after the one I have condemned, and is with the gutta-percha stylet, perfectly safe and absolutely certain to touch the ducts and the last inch of the urethra, which is always involved in spermatorrhea. With Lallemand's instrument, aside from its mechanical defects, accuracy in the place of application of the caustic is impossible.

We have now cited, out of a great number, three type-cases, illustrating the comprehensive character, as a curative instrument, of the Urethrotome. We should rather use the plural number, for there are six different instruments. The cases are purposely selected from the most difficult ones. In every minor case of stricture, some one of the instruments is equally applicable. In cases of enlarged prostrate gland, where the passage of the catheter is very difficult, there is no reason why the instrument should not prove equally effective. Our experience has been confined to two cases only; in both, the catheter number ten was passed, and the patients are still

quite comfortable whilst themselves using it. In neither case can a cure be anticipated, as both patients are advanced in life. Neither has ever been strictured.

In cases of long-continued gleet, where stricture is beginning to form, the instrument will be found very effective as a resolver of local congestion. It operates precisely like the delicate divisions, made by the lancet, of the lining membrane of the eyelids. We have cured numerous cases of gleet, which had resisted the various applications in use by the bougie, after a few very slight incisions, scarcely tinging the urine with blood, and requiring no confinement nor any other treatment whatever ; the discharge, and sensitiveness of the urethra, have ceased in a few weeks, and where a number four or six bougie would barely pass, with considerable pain, we have sent the patient away, able to pass number ten and twelve, with perfect ease and no pain whatever. In cases of great irritability of the neck of the bladder, doubtless produced by backward continuation of morbid action from the stricture, great relief has followed. No doubt exists on my mind, if the unfortunate "business habits" of our exciteable people would allow them to take time to investigate the subject, most of these cases could be cured. They require, however, the presence of actual stricture, before most of them can bring themselves to so great a sacrifice. When the urine is actually suppressed, then only does the patient perceive the necessity of positive surgical treatment. Out of many hundred cases of gleet, few have been told that a gleet is the first symptom of the formation of stricture. It is the almost invariable custom for all such cases to be placed under medical remedies, that is, remedies to be swallowed. These they can buy in any quantity, and unfortunately not always from quacks and apothecaries ; there is not a "respectable physician" in this city who will not prescribe "remedies" for gleet as long as they are demanded, or, his patient will pay him for so doing. Not five per cent. are even sounded to ascertain whether there is not actual stricture. It is far easier

to write a receipt for medicine, and when the list is exhausted, or the patient has lost confidence in his physician, he goes to another, only to experience the same *rote* of disappointment. He finally becomes disgusted, and abandons himself to eating and drinking to keep up his waning powers, until actual stricture and partial loss of virility warns him to seek the surgeon. I printed the opinion twelve years ago in my work on Diseases of the Sexual System, that the medical treatment of gonorrhœa and gleet was entirely empirical, and could never be otherwise. A "remedy" to be swallowed, with the view of producing any certain action on the urethra, is absurd; it may act favorably, but no reliance whatever can be placed upon it. It goes into the stomach, not into the urethra. The stomach first acts on it, and its indigestible portions pass out of the bowels; but a very slight action from any remedy, however powerful, can be expected on any entirely disconnected cavity and its lining membrane. Moreover, it deranges the digestion, and the chief remedy relied on, the Balsam Copabia, itself often produces a formidable eruption over the whole body and face, which insures the exposure of the patient as the probable victim of a far more formidable, indeed, an awful disease. There are no scientific methods of treating clap but two: Firstly, and on the appearance of the first symptom, meaning, thereby, on the first hour of its appearance, by the local application of nitrate of silver by the means of a wax bougie very lightly charged; this should never be inserted more than an inch, for there the poison exists only. Injections are absurd, for they go entirely past the spot, and produce inflammation lower down, inviting the continuous action of the poison throughout the whole urethra. This method should never occupy over three days; if then successful, the patient should starve himself down, drink neither spirits, water, tea, nor coffee, on the principle of not filling the blood-vessels, and as soon as all inflammation, as evinced by scalding on urinating, has ceased, he may use injections, either mineral or vegetable, to contract the relaxed membrane of the urethra, and aid the return of health-

ful action. If the patient will not do this, and keep his feet and skin constantly warm, by staying in the house if necessary, or in bed, he may rely on on it that the disease will last from a month to a year, before it ceases naturally. In the latter case, and if he be scrofulous, or a great smoker of tobacco, it may leave a gleet, or white discharge, which is the symptom of incipient stricture. This, gentleman, is the verdict of every scientific and honest man who has had experience enough to discover, and has manhood enough to speak, the truth.

You may avail yourselves of the patient's ignorance and prejudice in selling him "a cure," but you will gain no lasting professional character by following the general example of your medico-commercial brethren. Give your patient honest advice, and caution him against his indiscretions; impress on him the necessity of keeping down inflammation for a fortnight, and don't allow him to cheat you out of your fee. He will learn to esteem you far more than though you pandered to his prejudices.

Our next lecture will be on the sympathetic symptoms of the urethra, rectum, and uterus, in other parts of the body. We shall also consider the subject of difficult menstruation and sterility, showing the admirable adaptation of the Urethrotome to the cure of this pathological condition. In immediate connection with this subject, you will see illustrated the anatomy of the urethra, and vesicula seminales, and the prostate gland and bladder; also the gravid uterus for each month, and the anatomy of the pelvis of both sexes. These exquisite works of art are the produce of the Florentine Academicians. I imported them expressly to illustrate these subjects, because it is impossible to show labor on the dead body. They will be invaluable when we come to speak of natural and difficult parturition.

It shall not be my fault if I do not give you some in return for the sacrifice of time and money which has brought you from your homes, and your own medical and surgical pursuits, to see what you can gather from my humble table. Had you

taken the same step before you obtained your diploma, you would not only have been rejected on your examination, whatever your attainments, but have been forever ostracized from your brethren. THE SCALPEL, and the independent course of its Editor, have been very far from securing him the amenities of his academic brethren, and the social delights of a yearly dinner, with the high compliment to his intelligence of listening to a president who could not write his own language correctly. But these are the days of reform and rebellion. God grant that we may live to see the day when the people and our profession will learn that they have higher duties to perform than the formation of political and medical cliques, and the acquisition of money. We have aided in killing that infamous association, the Kappa Lambda Society, and we hope to live long enough to purify the Academy of Medicine.

NOTE.—It is due to our self-respect to explain why these have not been drawn and described in the medical journals, like all our other instruments. During thirty-five years' practice in this our native city, we have invented a greater number of instruments now in use, than any other member of the profession. If this be denied, we refer the matter to the surgical instrument-makers and to the *Boston Medical and Surgical Journal.* Our own Journal, THE SCALPEL, contains cuts of several.

These instruments have been freely given to the profession. The community expresses surprise that professional men do not patent their instruments. This, of course, no man of right professional feeling would do. It is but human nature, however, where a man has devoted his whole time for thirty-five years to a profession, that he should wish to derive some credit from his inventions, whilst still pursuing that profession practically.

We will record two little incidents to show how far such a result is likely to happen. Dr. Samuel D. Gross, Professor of Surgery at Philadelphia, in his great *Compendium of Diseases of the Sexual Organs,* when treating on involuntary seminal emis-

sion, has given an accurate cut and description of our caustic catheter (the one we have condemned and now cease to use), taken from our work on *Diseases of the Sexual System*, and after pronouncing it the only safe instrument for that purpose, omitted to name the inventor, though that very book was presented to him by our own hand. The same gentleman examining our six-branch speculum, described in THE SCALPEL, at Mr. Tiemann's shop in this city, denied that we were the inventor!

Our Uterine Bisector and Polypus Ligator, have both been shown and described for years to the surgical classes at the University in this city, and the name of the inventor never once mentioned, though we have presented the instruments to the distinguished Professor, (our own preceptor, Dr. Valentine Mott,) who has been President of the Medical Academy!

Is it necessary for us to say more? Mr. Syme has been obliged to sue one of the most eminent surgeons of London for endeavoring, by detraction of his character, as a safe surgeon, to prevent his practising the very operation to avoid the necessity for which we have invented these instruments, Mr. Syme's operation, though perfectly effectual, is really a severe one. If we have succeeded in adding a good contribution to the surgical armament, it will be none the less valuable when we have received that return which it is but reasonable to anticipate, and which, it would seem, is all we are likely to get.

An experience of ten years since the invention and use of the instrument, then first described in a short essay published in 1855, in the ninth edition of my book on Diseases of the Sexual System. We have republished that essay in this the tenth edition, because we wish to show how slowly and laboriously we attained the truth, and how reliable a practical measure it is. We are now convinced that the views therein expressed are quite correct, but that the instrument will not answer for the worst cases of stricture. During a part of that

period, whilst in the pursuit of the object we then had in view, but which we are now convinced was quite unattainable, namely, a single instrument sufficiently comprehensive in its adaptation to divide and dilate all cases of stricture, we have invented no less than six different instruments, all adapted to different complications of stricture. These we still designate by the general name of the Urethrotome. It is with the view of answering inquirers from abroad more comprehensively than we could possibly do by letter, that we have prepared this short digest of a lecture on stricture prepared for our private class.

We would suggest that a personal investigation is almost invariably necessary for a correct opinion ; we therefore conscientiously advise personal application. If this be impossible, we must insist on the enclosure of our fee, ($5)—if the writer desires an answer to this letter. It would occupy our entire time, if we attempted to answer the letters we receive from those whose descriptions are entirely inadequate to give any idea of their cases. We are usually obliged to ask for other symptoms, which they have overlooked, before we can give any assurance that treatment will be available ; this requires time, and we are obliged to charge for it, as we do for personal consultation. If any operation be advised, an accurate business arrangement must be made before the period appointed for its performance ; as we are frequently obliged to decline the terms offered—and are often absent from home. A week's notice by letter will prevent disappointment ; this had better be directed to our residence, 42 Fifth Avenue. If out of the city to box 3121.

Abridged from a Lecture on Irritable Urethra and its consequences. Delivered to his private Surgical Class, by Edward H. Dixon, M. D., Editor of THE SCALPEL, *and Operating and Consulting Surgeon, 42 Fifth Avenue. (Tenth Lecture.)*

GENTLEMEN: You have now had an opportunity to examine the structure of the urethra and its appendages, and to see the application of my instruments on the dead and living body. You have noted the dimensions, structure, and distances of the passage, and the position in which strictures most frequently occur. I shall, therefore, take it for granted, that you are capable of judging of the propriety of adopting the views of Mr. Syme, and comparing them with those of the various authors on stricture, and of following me in what I have now to say on that most frequent and distressing of all affections, *Irritable Urethra*, and incontinence of urine, with partial loss of virile power.

You will find a vast number of such cases in country towns and isolated farm-houses, where the ordinary excitements of society and city life are not operative in diverting the mind from its too frequent resource, the cultivation of the sexual passion. The extent to which self-abuse is carried in our excitable nation is fearful to think of. Nearly twenty years have elapsed since the publication of my work on Diseases of the Sexual System, and after the immense experience you may easily imagine I have had in consequence of the circulation of more than one hundred thousand copies of that work, I can assure you that the views therein expressed of its influence on the inind and body are more than confirmed. I wrote that book from a conviction of its necessity after three year's at-

tendance as Surgeon to two of our largest institutions for young people, namely, the Deaf and Dumb Asylum and the House of Refuge. I visited all our prisons and poor-houses, and conversed with the principals of many boarding-schools. The result of my experience was the conviction expressed in that volume, that it was the master vice of our young people, and that its terrible consequences were by no means understood or appreciated by our best physicians.

The sympathetic influence of hemorrhoids, fissures and ulcers of the rectum, and varicocele, in producing irritability of the urethra, and want of contractile power in the closing muscle or sphincter of the bladder, has been the subject of one lecture, you will, therefore, always give the existence of either of these affections due consideration in the treatment. Depend upon it, if you overlook their existence, or take the patient's assurance of the soundness of his rectum, without a careful examination with the speculum, you will frequently be mortified in your efforts to cure incontinence of urine; you will find it often utterly intractable whilst either of these diseases exist. The respective parts all derive their nerves from the same portion of the spinal system, and all their diseases are mutually associated and dependent. Tobacco has a very powerful influence in producing irritable urethra and piles. I have given my views on this subject with those of the great surgeons, Mr. Lizars and Sir Benjamin Brodie, in the forty-fifth and forty-sixth Nos. of THE SCALPEL.

Let us now consider carefully the condition of a man with irritable urethra. What does it mean? A certain portion, usually near the neck of the bladder, in which the two seminal vessels send their two ducts to open their mouths, has taken on a morbid sensitiveness; if we could see its color in the living body, we would find it much redder than the natural state; indeed, we know it must be so, because the great sentitiveness could not exist without a high degree of congestion or fullness of the blood-vessels that form and nourish the membrane. Observe, that when the sound, or catheter, reaches

the two last inches of the urethra, just before it enters the bladder, the patient will always shrink. Sometimes this irritability extends over the whole urethra to the end of the penis. The testicles also share it: they are often as movable as a bunch of earth-worms in a bag.

The condition of the urethra may be produced by sexual excesses as well as self abuse, and that most disgusting and unmanly practice—partial or incomplete sexual communication; a habit of our unfortunately ignorant young married people, to avoid or regulate offspring; this practice, however, which I was about to call beastly, (but the poor beasts are too natural for such an act,) is often followed by loss of virility and by incontinence; a passive condition, the reverse of irritability: for this condition cauterization is used. I have spoken at length on the subject of cauterization, and you have the work of Monsieur Lallemand, its inventor and advocate. After a very large experience in its use, I have assured you that I have found it greatly overrated as a curative agent, besides being a very dangerous remedy and very likely to produce stricture in the hands of the empirics who use it so largely. It is only applicable to passive spermatorrhœa.

Let us now consider the rationale of a remedy we use with great effect in several analogous conditions of other parts of the body: In ulceration of the rectum and fissure, where irritability and exquisite pain exist on passing the stool, an instant cure is the result of a slight incision through the ulcer or fissure. In inflammation of the conjunctiva of the eye, instant relief follows the unloading of the vessels by drawing the lancet across them. In congestion of the lining membrane of the neck of the uterus, constituting painful menstruation, the the same result follows; this is precisely analogous to the use of my urethratome for that purpose in the urethra: and now I want you in this immediate relation to follow me in the reasoning I adopted in thus applying it with such admirable results, that I shall not readily discontinue it for the substitution of medicines, which of course can only palliate for the

time they are given ; and how often will they do even that?

When you pass a full-sized catheter—say number twelve —to ascertain the condition of the urethra, of course if you meet a bad stricture, you can go no further with that instrument ; suppose you try number six, and that goes though with difficulty, why, of course, you know that the man's urethra is obstructed to that extent, or one half its diameter. Now, if this condition exist, and he be the subject of urethral irritation, either from clap or self-abuse, he is partially and for a time strictured—that is to say, he has a congestive and irritable stricture : surely so, for what else can you call it? What is to prevent its becoming a permanent stricture? every stricture has a beginning. Is it not, therefore, evident to common-sense, that if you let the blood out of the congested or engorged blood-vessels, and destroy the irritability of the nerves by dividing them, you will restore the narrowed urethra to its natural calibre, and stop the irritation of the nerves by dividing the tissues, as we do for congestion of the womb, lining of the eyelid, and the rectum? And that is precisely the result. The patient has immediate relief by a couple of slight incisions that scarcely tinge the urine with blood ; a number twelve catheter will instantly pass with little or no pain ; he will pass his urine in a full stream ; and after a few times using the catheter, if he will follow other rational directions, he will be cured of a very sad and humiliating condition, and in all probability a permanent stricture, and perhaps partial or complete loss of his virility be prevented. The first example I presented you in the Lecture on Stricture, fully illustrates this.

It is this irritable and partially-inflamed condition of the urethra, gradually carried backwards to the closing muscle or sphincter of the bladder, that exhausts the contractile power of that muscle. The irritation of the urethra goads the bladder to contract, and the muscle loses its healthful organic or tonic power ; it is wearied out ; it is no longer subject to the will, but contracts and expands spasmodically and the urine issues

in drops unexpectedly. Any sudden agitation, such as fear, anger, or sexual desire by lascivious dreams, or unexpected proximity to the other sex, will often extend this spasmodic action to the muscles which envelope the membranous portion of the urethra and control the semen; the contractile power of the seminal ducts is also impaired, and mortifying and premature discharges of semen occur in intercourse or in dreams. When this condition has continued a longer or shorter time, according to the power of the constitution of the patient, it passes into that painful and pitiful condition of passive loss of semen, in which he is quite unconscious of any sexual emotion; the passage of the stools will cause its loss, and unless stopped, and the constitution improved, the patient will pass into a decline or into the condition of fatuity—useless to himself, and a nuisance to all about him.

This condition is no longer irritable irritation, for that word implies action. The whole mucous membrane becomes blanched and comparatively bloodless, and passive spermatorrhœa is established; these cases require cauterization.

All those who apply to you in this condition for relief, will demand medicine. I have for twenty years received on an average over a thousand letters a year, complaining bitterly of the villainy of empirics who had deluded the writers with promises to *cure* them, and yet any one of them would have gladly swallowed more from my hands. The truth is, these poor people become desperate, crazed; they see the difference between themselves and other men, and having no knowledge of the laws of their sexual and organic nature, they have no reason to doubt any promise that may be made them. One miserable individual has actually made thousands believe by his advertisements that there is a great philanthropic college in Philadelphia, to issue advice and make medicines for their relief. Here, we have the dear old clergyman, whose "sands of life are nearly run," and who has made a very large fortune, and is now in lusty youth engaged in stock and property operations in Wall street. He has been pointed out to me several times in the street.

Neither Lupuline, Ergotine, Gelsemine, Tincture of Iron, nor any other medicines have any permanent effect. Bromide of Potass is now the newly proposed remedy. I am now using it, but I confess with little faith. There is only one tonic which will give any increase of power to the system, and that is Phosphoric Acid, combined with Strychnine; that medicine will, by adding to the exhausted nerves one of the greatest elements of their composition, produce the well-known effect

of a fish diet, which is remarkable for its restorative effect on the jaded libertine.

The Strychnine, you know, is the most direct excitant of the nerves known to physicians. Neither of these medicines, however, will "cure" the disease. They can only raise the physical condition. When a libertine is nearly exhausted, and has partially lost his virility from sexual excess and smoking, and complains of coldness of the sexual organs, and dizziness, ringing of the ears, susceptibility to cold, and general exhaustion, it is the best tonic you can give him, and will often induce him to believe he is getting well, and may resume his excesses. When the sphincter muscle of the bladder is weakened, and his urine dribbles from him, or he is exhausted from hemorrhoids, fistula, or prolapsus of the rectum, or if woman, the womb, it will greatly benefit most cases. Of course you must use the greatest care in its apportionment, nor should it ever be received from any hand but one of perfect reliability.

The Phosphoric Acid of the shops is quite unreliable; much of it is doubtless pure water. You know the sources whence it is to be obtained, and must be quite sure of its quality.

NOTE.—This Lecture has been printed with the object of giving a more satisfactory answer than his time could possibly allow, to those who are constantly addressing Dr. D. by letter. He has not the slightest faith in any medicine he has ever tried—and he has tried most of them repeatedly—to "cure" the disease. With this avowal, he trusts all will be satisfied. Letters requiring advice must contain the usual fee of Five Dollars; advice, however, is rarely of any value; the patient should, if possible, make personal application. His disease requires an instrumental examination, both of the urethra and rectum.

No. 46 of THE SCAPEL contains a valuable article on the subject of diseases of the rectum, bladder, and uretus, and impotence and irritable urethra. It will greatly aid in forming a correct opinion. Enclose 50 cents to box 3121.

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